

1/22

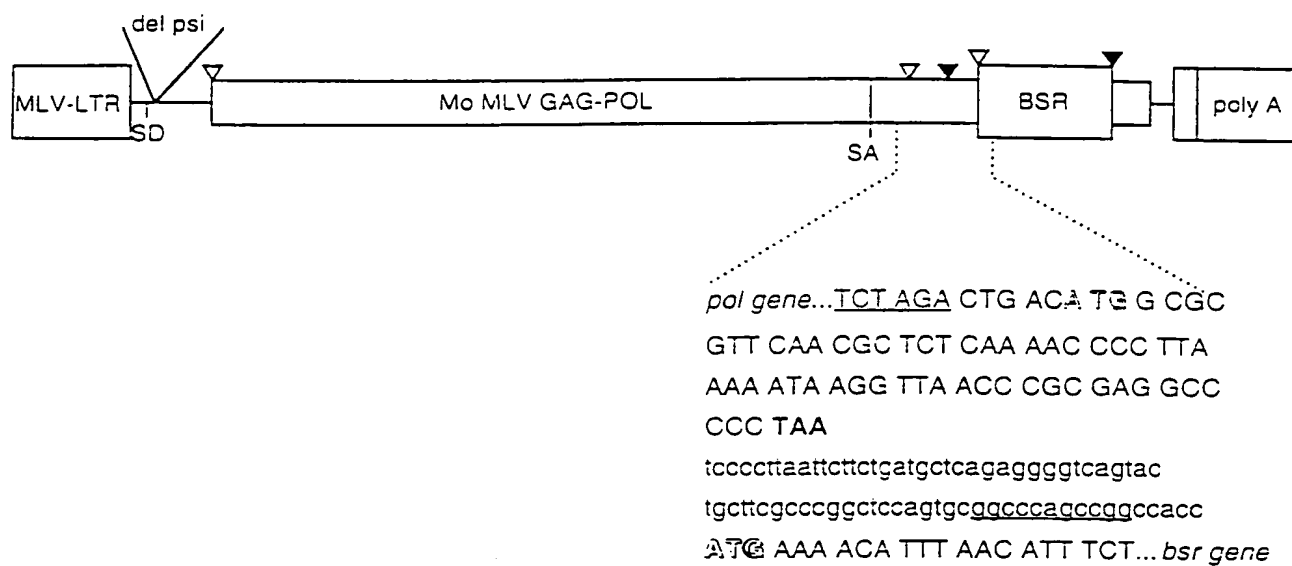


Figure 1. Schematic structure of CeB expression vector

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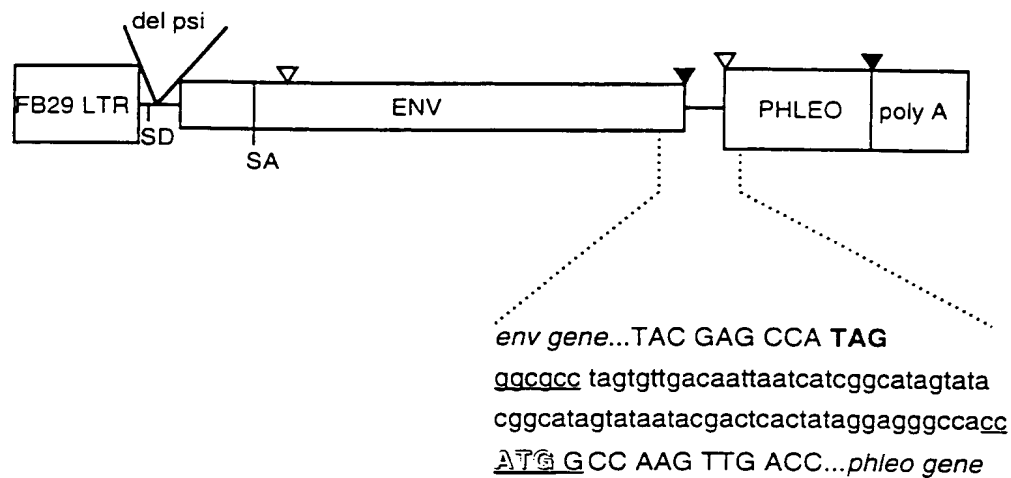


Figure 2. Schematic structure of FBdelPASF expression vector

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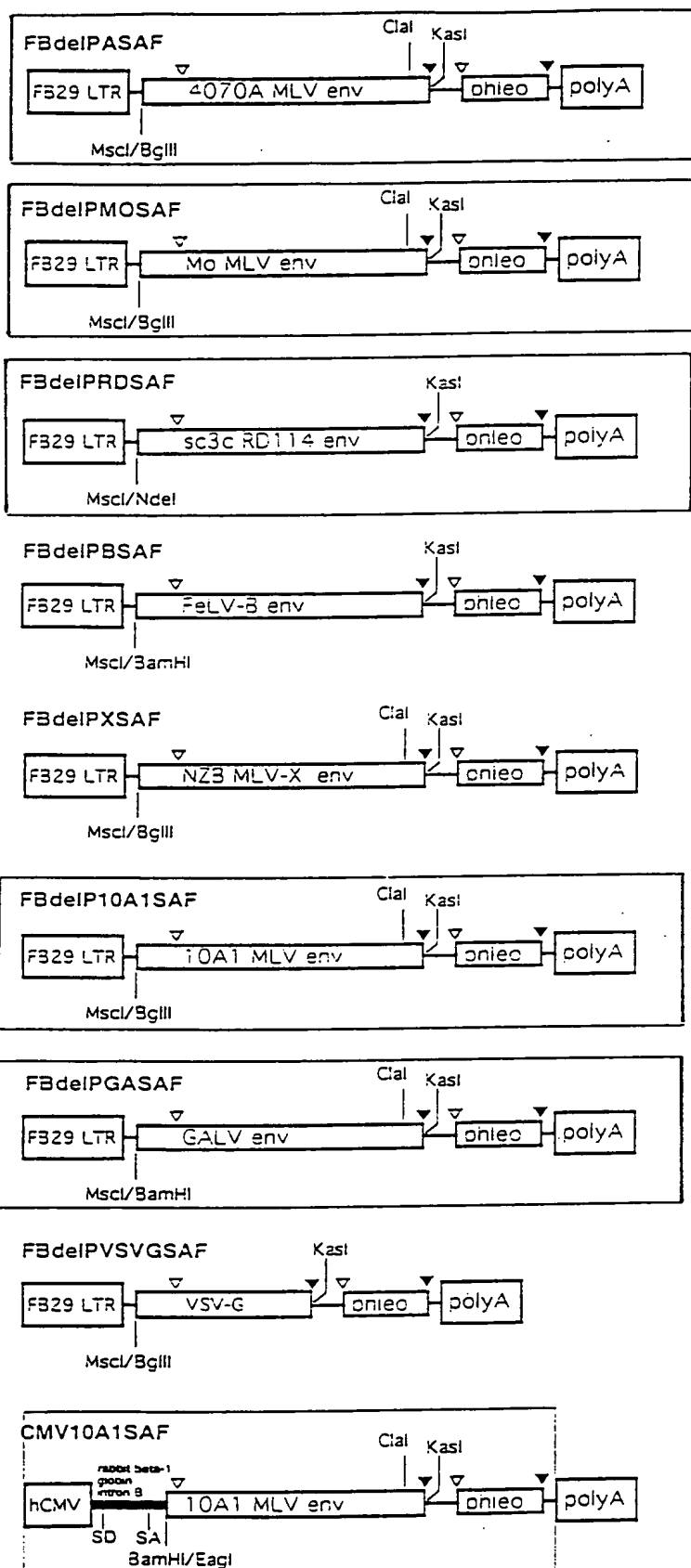


Figure 3. Schematic structure of env expression vectors

SUBSTITUTE SHEET (RULE 26)

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NGAGCTCAGGACAGGTAGAAAGAATGAATAGAACAATAAAAAGAGACCCTTACTAAATTGA 60
CCTTAGAGACTGGCTTAAAAGATTGGAGACGCCTCTATCTCTGGCTTTGTAAAGAGCCA 120
GAAATACGCCCCAACCGTTTTTCGGCTCACCCCATATGAAATCCTTTATGGGGGACCCCCC 180
CTTTGTCAACCTTGCTCAATTCCTTCTCCCCCTCCGATCCTAAGACTGATTTACAAGCCC 240
GACTAAAAGGGCTGCAAGGCGTGCAGGCCCAAATCTGGACACCCTGGCCGAATTGTACC 300
GGCCAGGACATCCACAACTAGCCACCCATTTTCAGGTGGGAGACTCCGTGTACGTCCGGC 360
GGCACCGCTCTCAAGGATTGGAGCCTCGTTGGAAGGGACCTTACATCGTCTGCTGACCA 420
CGCCCACCGCCATAAAGGTTGACGGGATCGCCGCCTGGATTACGCATCGCACGCCAAGG 480
CAGCCCCAAAAACCCCTGGACCAGAACTCCCAAAACCTGGAAGCTCCGCCGTTCCGGAGA 540
ACCCTCTTAAGATAAGACTCTCCCGTGTCTGACTGCTAATCCACCTTGTCCCTGTACTAA 600
CCCAAAATGAACTCCCAACAGGAATGGTCATTTTATGTAGCCTAATAATAGTTCGGGCA 660
GGGTTTGACGACCCCCGCAAGGCTATCGCATTAGTACAAAAACAACATGGTAAACCATGC 720
GAATGCAGCGGAGGGCAGGTATCCGAGGCCCCACCGAACTCCATCCAACAGGTAACCTGC 780
CCAGGCAAGACGGCCTACTTAATGACCAACCAAAAATGGAATGCAGAGTCACTCCAAAA 840
ATCTCACCTAGCGGGGGAGAAGTCCAGAAGTGGCCCTGTAACACTTTCCAGGACTCGATG 900
CACAGTTCTTGTTATACTGAATACCGGCAATGCAGGCGAATTAATAAGACATACTACAG 960
GCCACCTTGCTTAAAATACGGTCTGGGAGCCTCAACGAGGTACAGATATTACAAAACCCC 1020
AATCAGCTCCTACAGTCCCCTTGTAGGGGCTCTATAAATCAGCCCGTTTGCTGGAGTGCC 1080
ACAGCCCCCATCCATATCTCCGATGGTGGAGGACCCCTCGATACTAAGAGAGTGTGGACA 1140
GTCCAAAAAAGGCTAGAACAAATTCATAAGGCTATGACTCCTGAACTTCAATACCACCCC 1200
TTAGCCCTGCCCCAAGTCAGAGATGACCTTAGCCTTGATGCACGGACTTTTGATATCCTG 1260
AATACCACCTTTTAGGTTACTCCAGATGTCCAATTTTAGCCTTGCCCAAGATTGTTGGCTC 1320
TGTTTAAAACTAGGTACCCCTACCCCTCTTGCGATACCCACTCCCTCTTTAACCTACTCC 1380
CTAGCAGACTCCCTAGCGAATGCCTCCTGTGAGATTATACCTCCCTCTTGTTCAACCG 1440
ATGCAGTTCTCCAACCTCGTCCTGTTTATCTTCCCCTTTTATTAACGATACGGAACAAATA 1500
GACTTAGGTGCAGTCACCTTTACTAAGTGCACCTCTGTAGCCAATGTCAGTAGTCCTTTA 1560
TGTGCCCTAAACGGGTCAGTCTTCTCTGTGGAAATAACATGGCATAACCTATTTACCC 1620
CAAACTGGACCAGACTTTGCGTCCAAGCCTCCCTCCTCCCCGACATTGACATCAACCCG 1680
GGGGATGAGCCAGTCCCCATTCTGCCATTGATCATTATATACATAGACCTAAACGAGCT 1740
GTACAGTTCATCCCTTTACTAGCTGGACTGGGAATCACCGCAGCATTACCACCGGAGCT 1800
ACAGGCCTAGGTGTCTCCGTCACCCAGTATACAAAATTATCCCATCAGTTAATATCTGAT 1860
GTCCAAGTCTTATCCGGTACCATAACAAGATTTACAAGACCAGGTAGACTCGTTAGCTGAA 1920
GTAGTTCTCCAAAATAGGAGGGGACTGGACCTACTAACGGCAGAACAGGAGGAATTTGT 1980
TTAGCCTTACAAGAAAAATGCTGTTTTTATGCTAACAGTCAAGGAATTGTGAGAAACAAA 2040
ATAAGAACCCTACAAGAAGAATTACAAAAACGCAGGGAAAGCCTGGCAACCAACCCTCTC 2100
TGGACCGGGCTGCAGGGCTTTCTTCCGTACCTCCTACCTCTCCTGGGACCCCTACTCACC 2160
CTCCTACTCATACTAACCATTGGGCCATGCGTTTTTCAGTCGCCTCATGGCCTTCATTAAT 2220
GATAGACTTAATGTTGTACATGCCATGGTGCTGGCCAGCAATACCAAGCACTCAAAGCT 2280
GAGGAAGAAGCTCAGGATTGAGCTTCCGGGACAAAAGCAGGGGGGAATGAGAAGTCAGAA 2340
CCCCCACCTTTGCTACATAAATAACCGCTTTCATTTTCGCTTCTGTAAAACGCTTATGCG 2400
CCCCACCCTAGCCGGAAAGTCCCCAGCCGCTACGCAACCCGGGCCCCGAGTTGCATCAGC 2460
CGTTCGCAACCCGGGCTCCGAGTTGCATCAGCCGAAAGAACTTCATTTCCCAAGCTT 2518

Fig. 4

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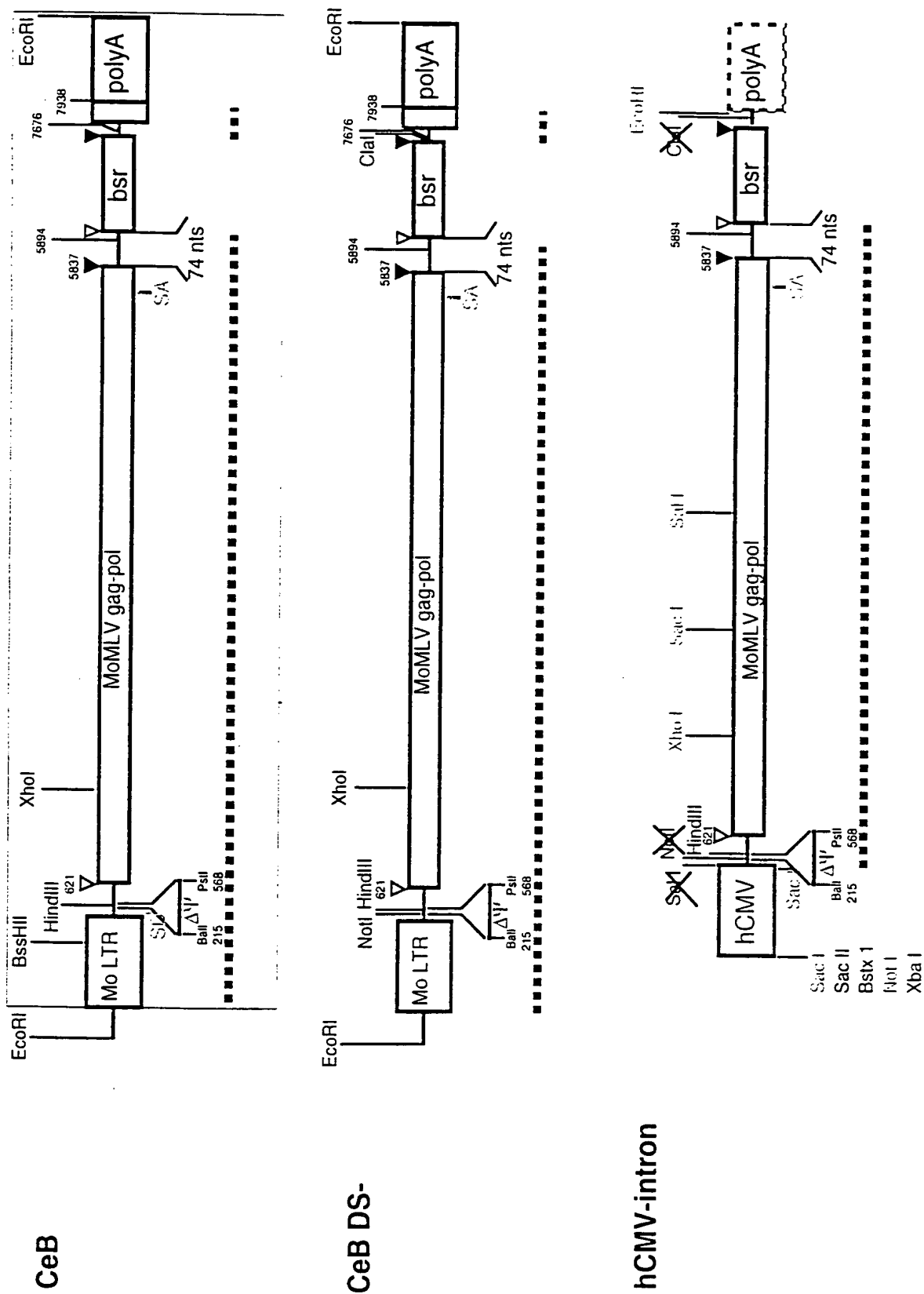
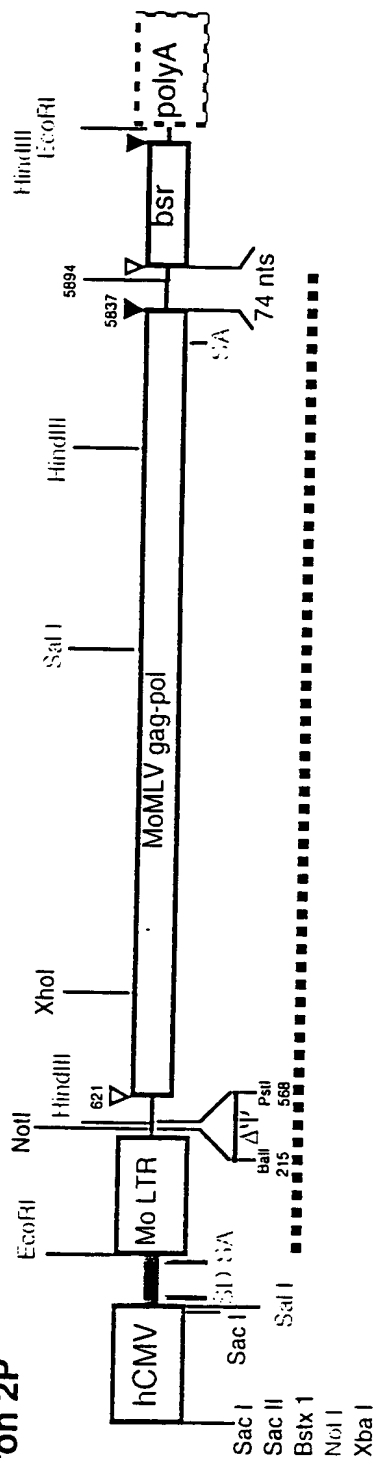


Figure 5. Genetic structure of gag-pol constructs (page 1/3)



hCMV+intron, hCMV+intronkaSD

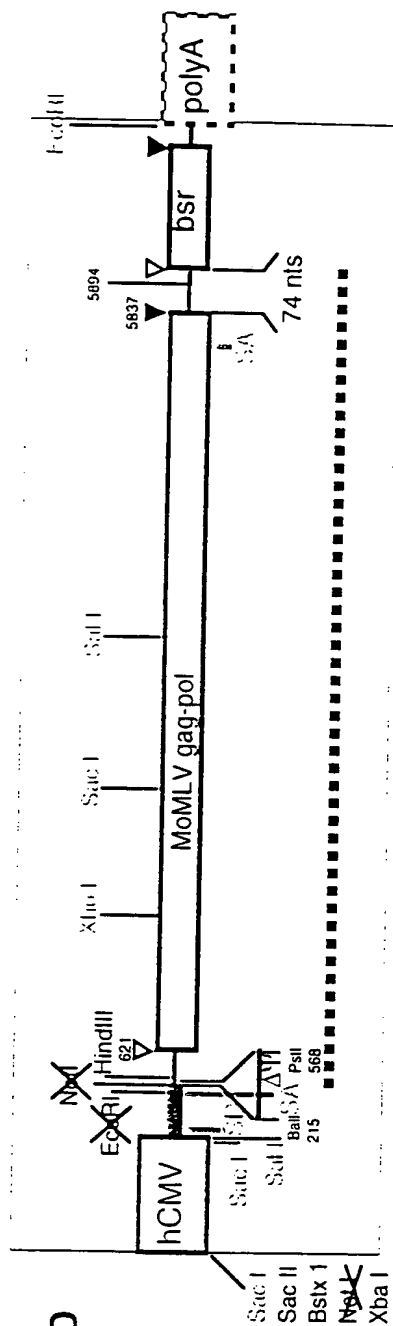


Figure 5. Genetic structure of gag-pol constructs (page 2/3)

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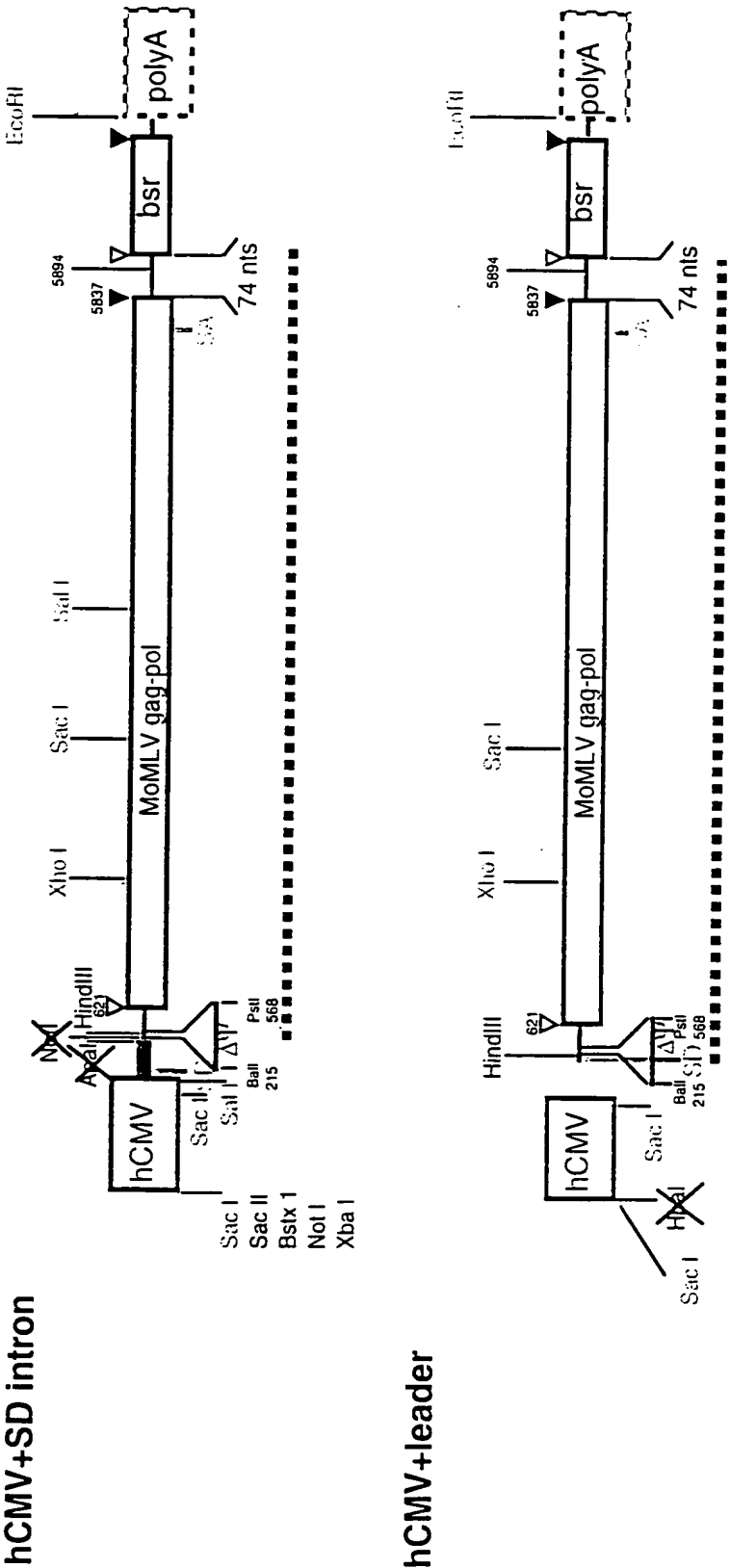


Figure 5. Genetic structure of gag-pol constructs (page 3/3)

Figure 6. CeB Sequence

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| | | | | | | |
|-------------|-------------|------------|------------|-------------|-------------|------|
| AATGAAAGAC | CCCACCTGTA | GGTTTGGCAA | GCTAGCTTAA | GTAAACGCCAT | TTTGCAAGGC | 60 |
| ATGGAAAAAT | ACATAACTGA | GAATAGAGAA | GTTCAGATCA | AGGTCAGGAA | CAGATGGAAC | 120 |
| AGCTGAATAT | GGGCCAAACA | GGATATCTGT | GGTAAGCAGT | TCCTGCCCCG | GCTCAGGGCC | 180 |
| AAGAACAGAT | GGAACAGCTG | AATATGGGCC | AAACAGGATA | TCTGTGGTAA | GCAGTTCCTG | 240 |
| CCCCGGCTCA | GGGCCAAGAA | CAGATGGTCC | CCAGATGCGG | TCCAGCCCTC | AGCAGTTTCT | 300 |
| AGAGAACCAT | CAGATGTTTC | CAGGGTGCCC | CAAGGACCTG | AAATGACCCT | GTGCCTTATT | 360 |
| TGAACTAACC | AATCAGTTCG | CTTCTCGCTT | CTGTTGCGCG | GCTTCTGCTC | CCCAGCTCA | 420 |
| ATAAAAGAGC | CCACAACCCC | TCACTCGGGG | CGCCAGTCCT | CCGATTGACT | GAGTCGCCCC | 480 |
| GGTACCCGTG | TATCCAATAA | ACCCTCTTGC | AGTTGCATCT | GACTTGTGGT | CTCGCTGTTC | 540 |
| CTTGGGAGGG | TCTCCTCTGA | GTGATTGACT | ACCCGTCAGC | GGGGGTCTTT | CATTTGGGGG | 600 |
| CTCGTCCGGG | ATCGGGAGAC | CCCTGCCCAG | GGACCACCGA | CCCACCACCG | GGAGGTAAGC | 660 |
| TGGAAGCTTC | TGCAGCATCG | TTCTGTGTTG | TCTCTGTCTG | ACTGTGTTTC | TGTATTTGTC | 720 |
| TGAGAATATG | GGCCAGACTG | TTACCACTCC | CTTAAGTTTG | ACCTTAGGTC | ACTGGAAGA | 780 |
| TGTCGAGCGG | ATCGCTCACA | ACCAGTCGGT | AGATGTCAAG | AAGAGACGTT | GGGTACCTT | 840 |
| CTGCTCTGCA | GAATGGCCAA | CCTTTAACGT | CGGATGGCCG | CGAGACGGCA | CCTTTAACCG | 900 |
| AGACCTCATC | ACCCAGGTTA | AGATCAAGGT | CTTTTCACCT | GGCCCGCATG | GACACCCAGA | 960 |
| CCAGGTCCCC | TACATCGTGA | CCTGGGAAGC | CTTGGCTTTT | GACCCCTCTC | CCTGGGTCAA | 1020 |
| GCCCTTTGTA | CACCTTAAGC | CTCCGCCTCC | TCTTCTCTCA | TCCGCCCCGT | CTCTCCCCCT | 1080 |
| TGAACCTCCT | CGTTCGACCC | CGCCTCGATC | CTCCCTTTAT | CCAGCCCTCA | CTCCTTCTCT | 1140 |
| AGGCGCCAAA | CCTAAACCTC | AAGTCTTTTC | TGACAGTGGG | GGGCCGCTCA | TCGACTTACT | 1200 |
| TACAGAAGAC | CCCCCGCCTT | ATAGGGACCC | AAGACCACCC | CCTTCCGACA | GGGACGGAAA | 1260 |
| TGGTGGAGAA | GCGACCCCTG | CGGGAGAGGC | ACCGGACCCC | TCCCCAATGG | CATCTCGCCT | 1320 |
| ACGTGGGAGA | CGGGAGCCCC | CTGTGGCCGA | CTCCACTACC | TCGCAGGCAT | TCCCCCTCCG | 1380 |
| CGCAGGAGGA | AACCGGAGGA | TTCAATACTG | GCCGTTCTCT | TCTTCTGACC | TTTACAAGTC | 1440 |
| GAAAAATAAT | AACCTTCTCT | TTTCTGAAGA | TCCAGGTAAA | CTGACAGCTC | TGATCAGTGC | 1500 |
| TGTTCTCATC | ACCCATCAGC | CCACCTGGGA | CGACTGTCAG | CAGCTGTTGG | GGACTCTGCT | 1560 |
| GACCGGAGAA | GAAAAACAAC | GGGTGCTCTT | AGAGGCTAGA | AAGGCGGTGC | GGGGCGATGA | 1620 |
| TGGGCGCCCC | ACTCAACTGC | CCAATGAAGT | CGATGCCGCT | TTTCCCCCTG | AGCGCCCAGA | 1680 |
| CTGGGATTAC | ACCACCTAGG | CAGGTAGGAA | CCACCTAGTC | CACATCGCC | AGTTGCTCTT | 1740 |
| AGCGGGTCTC | CAAAACGCGG | GCAGAAGCCC | CACCAATTTG | GCCAAGGTAA | AAGGAATAAC | 1800 |
| ACAAGGGCCC | AATGAGTCTC | CCTCGGCCTT | CCTAGAGAGA | CTTAAGGAAG | CCTATCGCAG | 1860 |
| GTACACTCCT | TATGACCCTG | AGGACCCAGG | GCAAGAAACT | AATGTGTCTA | TGTCTTTCAT | 1920 |
| TTGGCAGTCT | GCCCCAGACA | TTGGGAGAAA | GTTAGAGAGG | TTAGAAGATT | TAAAAACAA | 1980 |
| GACGCTTGGG | GATTTGGTTA | GAGAGGCAGA | AAAGATCTTT | AATAAACGAG | AAACCCCGGA | 2040 |
| AGAAAGAGAG | GAACGTATCA | GGAGAGAAAC | AGAGGAAAAA | GAAGAACGCC | GTAGGACAGA | 2100 |
| GGATGAGCAG | AAAGAGAAAG | AAAGAGATCG | TAGGAGACAT | AGAGAGATGA | GCAAGCTATT | 2160 |
| GGCCACTGTC | GTTAGTGGAC | AGAAACAGGA | TAGACAGGGA | GGAGAACGAA | GGAGGTCCCA | 2220 |
| ACTCGATCGC | GACCAGTGTG | CCTACTGCAA | AGAAAAGGGG | CACTGGGCTA | AAGATTGTTC | 2280 |
| CAAGAAACCA | CGAGGACCTC | GGGGACCAAG | ACCCAGACC | TCCCTCCTGA | CCCTAGATGA | 2340 |
| CTAGGGAGGT | CAGGGTCAGG | AGCCCCCCCC | TGAACCCAGG | ATAACCTTCA | AAGTCGGGGG | 2400 |
| GCAACCCGTC | ACCTTCTCTG | TAGATACTGG | GGCCCAACAC | TCCGTGCTGA | CCCAAATCC | 2460 |
| TGGACCCCTA | AGTGATAAGT | CTGCCTGGGT | CCAAGGGGCT | ACTGGAGGAA | AGCGGTATCG | 2520 |
| CTGGACCACG | GATCGCAAAAG | TACATCTAGC | TACCGGTAAG | GTCACCCACT | CTTTCCTCCA | 2580 |
| TGTACCAGAC | TGTCCTATC | CTCTGTTAGG | AAGAGATTTG | CTGACTAAAC | TAAAAACCA | 2640 |
| AATCCACTTT | GAGGGATCAG | GAGCTCAGGT | TATGGGACCA | ATGGGGCAGC | CCCTGCAAGT | 2700 |
| GTTGACCCTA | AATATAGAAG | ATGAGCATCG | GCTACATGAG | ACCTCAAAAG | AGCCAGATGT | 2760 |
| TTCTCTAGGG | TCCACATGGC | TGTCTGATTT | TCCTCAGGCC | TGGGCGGAAA | CCGGGGGCAT | 2820 |
| GGGACTGGCA | GTTTCGCCAAG | CTCCTCTGAT | CATACCTCTG | AAAGCAACCT | CTACCCCCGT | 2880 |
| GTCCATAAAA | CAATACCCCA | TGTCACAAGA | AGCCAGACTG | GGGATCAAGC | CCCACATACA | 2940 |
| GAGACTGTTG | GACCAGGGAA | TACTGGTACC | CTGCCAGTCC | CCCTGGAACA | CGCCCCCTGCT | 3000 |
| ACCCGTTAAG | AAACCAGGGA | CTAATGATTA | TAGGCCTGTC | CAGGATCTGA | GAGAAGTCAA | 3060 |
| CAAGCGGGTG | GAAGACATCC | ACCCACCCGT | GCCCAACCTT | TACAACCTCT | TGAGCGGGCT | 3120 |
| CCCACCGTCC | CACCACTGGT | ACACTGTGCT | TGATTTAAAG | GATGCCTTTT | TCTGCCTGAG | 3180 |
| ACTCCACCCC | ACCAGTCAGC | CTCTCTTCGC | CTTTGAGTGG | AGAGATCCAG | AGATGGGAAT | 3240 |
| CTCAGGACAA | TTGACCTGGA | CCAGACTCCC | ACAGGGTTTC | AAAAACAGTC | CCACCCCTGTT | 3300 |
| TGATGAGGCA | CTGCACAGAG | ACCTAGCAGA | CTTCCGGATC | CAGCACCCAG | ACTTGATCCT | 3360 |
| GCTACAGTAC | GTGGATGACT | TACTGCTGGC | CGCCACTTCT | GAGCTAGACT | GCCAACAAGG | 3420 |
| TACTCGGGCC | CTGTTACAAA | CCTAGGGAA | CCTCGGGTAT | CGGGCCTCGG | CCAAGAAAGC | 3480 |
| CCAAATTTGC | CAGAAACAGG | TCAAGTATCT | GGGGTATCTT | CTAAAAAGAGG | GTCAGAGATG | 3540 |
| GCTGACTGAG | GCCAGAAAAG | AGACTGTGAT | GGGGCAGCCT | ACTCCGAAGA | CCCCCTGACA | 3600 |
| ACTAAGGGAG | TTCTTAGGGA | CGGCAGGCTT | CTGTCGCCTC | TGGATCCCTG | GGTTTGCAGA | 3660 |
| AATGGCAGCC | CCCTTGATAC | CTCTCACCAA | AACGGGGACT | CTGTTTAATT | GGGGCCGAGA | 3720 |
| CCAAACAAAAG | GCCTTCAAG | AAATCAAGCA | AGCTCTTCTA | ACTGCCCCAG | CCCTGGGGTT | 3780 |
| GCCAGATTTG | ACTAAGCCCT | TTGAACCTCT | TGTCGACGAG | AAGCAGGGCT | ACGCCAAAGG | 3840 |
| TGTCCTAACG | CAAAAACCTG | GACCTTGGCG | TCGGCCGGTG | GCCTACCTGT | CCAAAAAGCT | 3900 |
| AGACCCAGTA | GCAGCTGGGT | GGCCCCCTTG | CCTACGGATG | GTAGCAGCCA | TTGCCGTACT | 3960 |
| GACAAAGGAT | GCAGGCAAGC | TAACCATGGG | ACAGCCACTA | GTCATTCTGG | CCCCCATGCT | 4020 |
| AGTAGAGGCA | CTAGTCAAAC | AACCCCCCGA | CCGCTGGCTT | TCCAACGCCC | GGATGACTCA | 4080 |

Figure 6. CeB Sequence

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| | | | | | | |
|-------------|-------------|------------|------------|-------------|-------------|------|
| CTATCAGGCC | TTGCTTTTGG | ACACGGACCG | GGTCCAGTTC | GGACCGGTGG | TAGCCCTGAA | 4140 |
| CCCGGCTACG | CTGCTCCAC | TGCTTGAGGA | AGGGCTGCAA | CACAACTGCC | TTGATATCCT | 4200 |
| GGCCGAAGCC | CACGGAACCC | GACCCGACCT | AACGGACCAG | CCGCTCCCAG | ACGCCGACCA | 4260 |
| CACCTGGTAC | ACGGATGGAA | GCAGTCTCTT | ACAAGAGGGA | CAGCGTAAGG | CGGGAGCTGC | 4320 |
| GGTGACCACC | GAGACCGAGG | TAATCTGGGC | TAAAGCCCTG | CCAGCCGGGA | CATCCGCTCA | 4380 |
| GCGGGCTGAA | CTGATAGCAC | TCACCCAGGC | CCTAAAGATG | GCAGAAGGTA | AGAAGCTAAA | 4440 |
| TGTTTATACT | GATAGCCGTT | ATGCTTTTGC | TACTGCCCAT | ATCCATGGAG | AAATATACAG | 4500 |
| AAGGCGTGGG | TTGCTCACAT | CAGAAGGCAA | AGAGATCAAA | AATAAAGACG | AGATCCTTGGC | 4560 |
| CCTACTAAAA | GCCCTCTTTC | TGCCCCAAAG | ACTTAGCATA | ATCCATTGTC | CAGGACATCA | 4620 |
| AAAGGGACAC | AGCGCCGAGG | CTAGAGGCAA | CCGGATGGCT | GACCAAGCGG | CCCGAAAGGC | 4680 |
| AGCCATCACA | GAGACTCCAG | ACACCTCTAC | CCTCCTCATA | GAAAATTTCAT | CACCCTACAC | 4740 |
| CTCAGAACAT | TTTCATTACA | CAGTGACTGA | TATAAAGGAC | CTAACCAAGT | TGGGGGCCAT | 4800 |
| TTATGATAAA | ACAAAGAAGT | ATTGGGTCTA | CCAAGGAAAA | CCTGTGATGC | CTGACCAGTT | 4860 |
| TACTTTTGAA | TTATTAGACT | TTCTTCATCA | GCTGACTCAC | CTCAGCTTCT | CAAAAATGAA | 4920 |
| GGCTCTCCTA | GAGAGAAGCC | ACAGTCCCTA | CTACATGCTG | AACCGGGATC | GAACACTCAA | 4980 |
| AAATATCACT | GAGACCTGCA | AAGCTTGTGC | ACAAGTCAAC | GCCAGCAAGT | CTGCCGTAA | 5040 |
| ACAGGGAAC | AGGGTCCGCG | GGCATCGGCC | CGGCATCAT | TGGGAGATCG | ATTTACCCGA | 5100 |
| GATAAAGCCC | GGATTGTATG | GCTATAAATA | TCTTCTAGTT | TTTATAGATA | CCTTTCTGG | 5160 |
| CTGGATAGAA | GCCTTCCCAA | CCAAGAAAGA | AACCGCCAAG | GTCGTAACCA | AGAAGCTACT | 5220 |
| AGAGGAGATC | TTCCCCAGGT | TCGGCATGCC | TCAGGTATTG | GGAAGTGACA | ATGGGCCTGC | 5280 |
| CTTCGTCTCC | AAGGTGAGTC | AGACAGTGCC | CGATCTGTTG | GGGATTGATT | GGAAATTACA | 5340 |
| TTGTGCATAC | AGACCCCAA | GCTCAGGCCA | GGTAGAAAGA | ATGAATAGAA | CCATCAAGGA | 5400 |
| GACTTTAACT | AAATTAACGC | TTGCAACTGG | CTCTAGAGAC | TGGGTGCTCC | TACTCCCTTT | 5460 |
| AGCCCTGTAC | CGAGCCCGCA | ACACGCCCGG | CCCCCATGGC | CTCACCCCAT | ATGAGATCTT | 5520 |
| ATATGGGGCA | CCCCCGCCCC | TTGTAAACTT | CCCTGACCCT | GACATGACAA | GAGTTACTAA | 5580 |
| CAGCCCCCTG | CTCCAAGCTC | ACTTACAGGC | TCTCTACTTA | GTCCAGCACG | AAGTCTGGAG | 5640 |
| ACCTCTGGCG | GCAGCCTACC | AAGAACAAC | GGACCGACCG | GTGGTACCTC | ACCCTTACCG | 5700 |
| AGTCGGCGAC | ACAGTGTGGG | TCCGCCGACA | CCAGACTAAG | AACCTAGAAC | CTCGCTAGAA | 5760 |
| AGGACCTTAC | ACAGTCCTGC | TGACCACCCC | CACCGCCCTC | AAAGTAGACG | GCATCGCAGC | 5820 |
| TTGGATAGAC | GCCGCCACG | TGAAGGCTGC | CGACCCCGGG | GGTGGACCAT | CCTCTAGACT | 5880 |
| GACATGGCGC | GTTCAACGCT | CTCAAAACCC | CTTAAAAATA | AGGTAAACCC | GCGAGGCCCC | 5940 |
| CTAATCCCC | TAATTTCTCT | GATGCTCAGA | GGGGTCAGTA | CTGCTTCGCC | CGGCTCCAGT | 6000 |
| GCGGCCCAGC | CGGCCACCAT | GAAAACATTT | AACATTTCTC | AACAAGATCT | AGAATAGTA | 6060 |
| GAAGTAGCGA | CAGAGAAGAT | TACAATGCTT | TATGAGGATA | ATAAACATCA | TGTGGGAGCG | 6120 |
| GCAATTTCGA | CGAAAACAGG | AGAAATCATT | TCGGCAGTAC | ATATTGAAGC | GTATATAGGA | 6180 |
| CGAGTAAC | TTTGTGCAGA | AGCCATTGCG | ATTGGTAGTG | CAGTTTCGAA | TGGACAAAAG | 6240 |
| GATTTTGACA | CGATTGTAGC | TGTTAGACAC | CCTTATTCTG | ACGAAGTAGA | TAGAAGTATT | 6300 |
| CGAGTGGTAA | GTCCTTGTGG | TATGTGTAGG | GAGTTGATTT | CAGACTATGC | ACCAGATTGT | 6360 |
| TTTGTGTAA | TAGAAATGAA | TGGCAAGTTA | GTCAAAAC | CGATTGAAGA | ACTCATTTCA | 6420 |
| CTCAAAATATA | CCCGAAATTA | AAAGTTTTAC | CACCAAGCTT | ATCGATTAGT | CCAATTTGTT | 6480 |
| AAAGACAGGA | TATCAGTGGT | CCAGGCTCTA | GTTTTGACTC | AACAATATCA | CCAGCTGAAG | 6540 |
| CCTATAGAGT | ACGAGCCATA | GATAAAATAA | AAGATTTTAT | TTAGTCTCCA | GAAAAAGGGG | 6600 |
| GGAATGAAAG | ACCCACCTG | TAGGTTTGGC | AAGCTAGCTT | AAGTAACGCC | ATTTTGCAG | 6660 |
| GCATGGAAAA | ATACATAACT | GAGAATAGAG | AAGTTCAGAT | CAAGGTCAGG | AACAGATGGA | 6720 |
| ACAGTCGAGA | ACTTGTTTAT | TGCAGCTTAT | AATGGTTACA | AATAAAGCAA | TAGCATCACA | 6780 |
| AATTTTACAA | ATAAAGCATT | TTTTTCACTG | CATTCTAGTT | GTGGTTTGTC | CAAACCTCAT | 6840 |
| AATGTATCTT | ATCATGCTCTG | GATCCCCAGG | AAGCTCCTCT | GTGTCCTCAT | AAACCCTAAC | 6900 |
| CTCCTCTACT | TGAGAGGACA | TTCCAATCAT | AGGCTGCCCA | TCCACCCCTCT | GTGTCCTCCT | 6960 |
| GTTAATTAGG | TCACTTAACA | AAAAGGAAAT | TGGGTAGGGG | TTTTTCACAG | ACCGCTTTCT | 7020 |
| AAGGGTAATT | TTAAAATATC | TGGGAAGTCC | CTTCCACTGC | TGTGTTCCAG | AAGTGTGGT | 7080 |
| AAACAGCCCA | CAAATGTCAA | CAGCAGAAAC | ATACAAGCTG | TCAGCTTTGC | ACAAGGGCCC | 7140 |
| AACACCCTGC | TCATCAAGAA | GCACTGTGGT | TGCTGTGTTA | GTAATGTGCA | AAACAGGAGG | 7200 |
| CACATTTTCC | CCACCTGTGT | AGGTTCCAAA | ATATCTAGTG | TTTTTCATTTT | TACTTGGATC | 7260 |
| AGGAACCCAG | CACTCCACTG | GATAAGCATT | ATCCTTATCC | AAAACAGCCT | TGTGGTCAGT | 7320 |
| GTTTCATCTC | TGACTGTCAA | CTGTAGCATT | TTTTGGGGTT | ACAGTTTGAG | CAGGATATTT | 7380 |
| GGTCCTGTAG | TTTGCTAACA | CACCCTGCAG | CTCCAAAGGT | TCCCAACCAA | CAGCAAAAAA | 7440 |
| ATGAAAATTT | GACCCCTGAA | TGGGTTTTCC | AGCACCATTT | TCATGAGTTT | TTTGTGTCCC | 7500 |
| TGAATGCAAG | TTTAACATAG | CAGTTACCCC | AATAACCTCA | GTTTTAACAG | TAACAGCTTC | 7560 |
| CCACATCAAA | ATATTTCCAC | AGGTAAAGTC | CTCATTTAAA | TAGGCAAAAG | GAATTC | 7616 |

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Figure 7. hCMV+intron Sequence

| | | | | | | |
|-------------|-------------|-------------|------------|------------|-------------|------|
| AGATCTCCCCG | ATCCCCCTATG | GTCGACTCTC | AGTACAATCT | GCTCTGATGC | CGCATAGTTA | 60 |
| AGCCAGTATC | TGCTCCCTGC | TTGTGTGTTG | GAGGTCGCTG | AGTAGTGCGC | GAGCAAAATT | 120 |
| TAAGCTACAA | CAAGGCAAGG | CTTGACCGAC | AATTGCATGA | AGAATCTGCT | TAGGGTTAGG | 180 |
| CGTTTTGCGC | TGCTTCGCGA | TGTACGGGCC | AGATATACGC | GTTGACATTG | ATTATTGACT | 240 |
| AGTTATTAAT | AGTAATCAAT | TACGGGGTCA | TTAGTTCATA | GCCCATATAT | GGAGTTCGCG | 300 |
| GTTACATAAC | TTACGGTAAA | TGGCCCCGCT | GGCTGACCGC | CCAACGACCC | CCGCCCATTG | 360 |
| ACGTCAATAA | TGACGTATGT | TCCCATAGTA | ACGCCAATAG | GGACTTTCCA | TTGACGTCAA | 420 |
| TGGGTGGACT | ATTTACGGTA | AACTGCCCCAC | TTGGCAGTAC | ATCAAGTGTA | TCATATGCCA | 480 |
| AGTACGCCCC | CTATTGACGT | CAATGACGGT | AAATGGCCCC | CCTGGCATT | TGCCCAGTAC | 540 |
| ATGACCTTAT | GGGACTTTTC | TACTTGGCAG | TACATCTACG | TATTAGTCAT | CGCTATTACC | 600 |
| ATGGTGATGC | GGTTTTGGCA | GTACATCAAT | GGGCGTGGAT | AGCGGTTTGA | CTCACGGGGA | 660 |
| TTTCCAAGTC | TCCACCCCAT | TGACGTCAAT | GGGAGTTTGT | TTTGGCACCA | AAATCAACGG | 720 |
| GACTTTCCAA | AATGTGCTAA | CAACTCCGCC | CCATTGACGC | AAATGGGCGG | TAGGCGTGTA | 780 |
| CGGTGGGAGG | TCTATATAAG | CAGAGCTCTC | TGGCTAACTA | GAGAACCCAC | TGCTTAACTG | 840 |
| GCTTATCGAA | ATGTCGACTG | AGAACTTCAG | GGTGAGTTTG | GGGACCCCTG | ATTGTTCTTT | 900 |
| CTTTTTCGCT | ATTGTAAAAT | TCATGTTATA | TGGAGGGGGC | AAAGTTTTC | GGGTGTGTGT | 960 |
| TAGAATGGGA | AGATGTCCCT | TGTATCACC | TGGACCTCA | TGATAATTTT | GTTTCTTTCA | 1020 |
| CTTTCTACTC | TGTTGACAAC | CATTGTCTCC | TCTTATTTTC | TTTTCATTTT | CTGTAACCTT | 1080 |
| TTCGTTAAAC | TTTAGCTTGC | ATTTGTAACG | AATTTTTTAA | TTCACTTTTG | TTTATTTGTC | 1140 |
| AGATTGTAAG | TACTTTCTCT | AATCACTTTT | TTTTCAAGGC | AATCAGGGTA | TATTATATTG | 1200 |
| TACTTCAGCA | CAGTTTTAGA | GAACAATTGT | TATAATTAAA | TGATAAGGTA | GAATATTTCT | 1260 |
| GCATATAAAT | TCTGGCTGGC | GTGGAATAT | TCTTATTGGT | AGAAACAAC | ACATCCTGGT | 1320 |
| CATCATCCTG | CCTTTCTCTT | TATGGTTACA | ATGATATACA | CTGTTTGAGA | TGAGGATAAA | 1380 |
| ATACTCTGAG | TCCAAACCGG | GCCCCCTG | TAACCATGTT | CATGCCTTCT | TCTTTTTCTT | 1440 |
| ACAGCTCCGT | GGCAACGTGC | TGGTTGTGTG | TGCTGTCTAT | CATTTTGCCA | AGAATTGGCC | 1500 |
| GCAAGCTTCT | GCAGCATCGT | TCTGTGTTGT | CTCTGTCTGA | CTGTGTTTCT | GTATTTGCTT | 1560 |
| GAGAATATGG | GCCAGACTGT | TACCACTCCC | TAAAGTTTGA | CCTTAGGTCA | CTGGAAAGAT | 1620 |
| GTCGAGCGGA | TGCTCACAAC | CCAGTCGGTA | GATGTCAAGA | AGAGACGTTG | GGTTACCTTC | 1680 |
| TGCTCTGCGA | AATGGCCAAC | CTTTAACGTC | GGATGGCCGC | GAGACGGCAG | CTTTAACCGA | 1740 |
| GACCTCATCA | CCCAGGTTAA | GATCAAGTCT | TTTTCACTTG | GCCCGCATGG | ACACCCAGAC | 1800 |
| CAGGTCCCCT | ACATCGTGAC | CTGGGAAGCC | TTGGCTTTTG | ACCCCCCTCC | CTGGGCTAAG | 1860 |
| CCCTTTGTAC | ACCCTAAGCC | TCCGCCTCCT | CTTCCTCCAT | CCGCCCCGTC | TCTCCCCCTT | 1920 |
| GAACCTCCTC | GTTGACCCCC | GCCTCGATCC | TCCCTTTATC | CAGCCCTCAC | TCCTTCTCTA | 1980 |
| GGCGCCAAAC | CTAAACCTCA | AGTTCTTTCT | GACAGTGGGG | GGCCGCTCAT | CGACCTACTT | 2040 |
| ACAGAAGACC | CCCCGCCTTA | TAGGGACCTC | AGACCAACCC | CTTCCGACAG | GGACGGAAAT | 2100 |
| GGTGGAGAAG | CGACCCCTGC | GGGAGAGGCA | CCGGACCCCT | CCCCAATGGC | ATCTCGCCTA | 2160 |
| CGTGGGAGAC | GGGAGCCCCC | TGTGGCCGAC | TCCACTACCT | CGCAGGCATT | CCCCCTCCGC | 2220 |
| GCAGGAGGAA | ACGGACAGCT | TCAATACTGG | CCGTTCTCCT | CTTCTGACCT | TTACAACCTG | 2280 |
| AAAAATAATA | ACCCTTCTTT | TTCTGAAGAT | CCAGGTAAAC | TGACAGCTCT | GATCGAGTCT | 2340 |
| GTTCTCATCA | CCCATCAGCC | ACCTTGGGAC | GACTGTACAG | AGCTGTTGGG | GACTCTGCTG | 2400 |
| ACCGGAGAAG | AAAAACAACG | GGTGCTCTTA | GAGGCTAGAA | AGGCGGTGCG | GGGCGATGAT | 2460 |
| GGGCGCCCCA | CTCAACTGCC | CAATGAAGTC | GATGCCGCTT | TTCCCTCGA | GCGCCAGAC | 2520 |
| TGGGATTACA | CCACCCAGGC | AGGTAGGAAC | CACCTAGTCC | ACTATCGCCA | GTTGCTCCTA | 2580 |
| GCGGGTCTCC | AGAAACGCGG | CAGAAACCCC | ACCAATTGCG | CCAAGGTAAA | AGGAATAACA | 2640 |
| CAAGGGCCCA | ATGAGTCTCC | CTCGGCCTTC | CTAGAGAGAC | TTAAGGAAGC | CTATCGCAGG | 2700 |
| TACACTCCTT | ATGACCCTGA | GGACCCAGGG | CAAGAACTA | ATGTGTCTAT | GTCTTTTCA | 2760 |
| TGGCAGTCTG | CCCCAGACAT | TGGGAGAAAG | TTAGAGAGGT | TAGAAGATTT | AAAAAACAAG | 2820 |
| ACGCTTGGAG | ATTTGGTTAG | AGAGGCAGAA | AAGATCTTTA | ATAAACGAGA | AACCCCGGAA | 2880 |
| GAAAGAGAGG | AACGTATCAG | GAGAGAAACA | GAGGAAAAAG | AAGAACGCCG | TAGGACAGAG | 2940 |
| GATGAGCAGA | AAGAGAAAGA | AAGAGATCGT | AGGAGACATA | GAGAGATGAG | CAAGCTATTG | 3000 |
| GCCACTGTG | TTAGTGAGCA | GAAACAGGAT | AGACAGGGAG | GAGAACGAAG | GAGGTCCCAA | 3060 |
| CTCGATGCGG | ACCAGTGTGC | CTACTGCAAA | GAAAAGGGGC | ACTGGGCTAA | AGATTGTCCC | 3120 |
| AAGAAACCCAC | GAGGACCTCG | GGGACCAAGA | CCCCAGACCT | CCCTCCTGAC | CCTAGATGAC | 3180 |
| TAGGGAGGTC | AGGGTCAGGA | GCCCCCCCCC | GAACCCAGGA | TAACCCCTCA | AGTCGGGGGG | 3240 |
| CAACCCGTCA | CCTTCCTGGT | AGATACTGGG | GCCCAACACT | CCGTGCTGAC | CCAAAATCCT | 3300 |
| GGACCCCTAA | GTGATAAGTC | TGCCTGGGTC | CAAGGGGCTA | CTGGAGGAAA | GCGGTATCGC | 3360 |
| TGGACCACGG | ATCGCAAAGT | ACATCTAGCT | ACCGGTAAGG | TCACCCACTC | TTTCTCTCCAT | 3420 |
| GTACCAGACT | GTCCCTATCC | TCTGTTAGGA | AGAGATTTGC | TGACTAAACT | AAAAGCCCCA | 3480 |
| ATCCACTTTG | AGGGATCAGG | AGCTCAGGTT | ATGGGACCAA | TGGGGCAGCC | CCTGCAAGTG | 3540 |
| TTGACCCTAA | ATATAGAAGA | TGAGCATCGG | CTACATGAGA | CCTCAAAAGA | GCCAGATGTT | 3600 |
| TCTCTAGGGT | CCACATGGCT | GTCTGATTTT | CCTCAGGCCT | GGGCGGAAAC | CGGGGGCATG | 3660 |
| GGACTGGCAG | TTCCGCAAGC | TCCTCTGATC | ATACCTCTGA | AAGCAACCTC | TACCCCGGTG | 3720 |
| TCCATAAAAC | AATACCCCAT | GTCAACAAGAA | GCCAGACTGG | GGATCAAGCC | CCACATACAG | 3780 |
| AGACTGTTGG | ACCAGGGAAAT | ACTGGTACCC | TGCCAGTCCC | CCTGGAACAC | GCCCCTGCTA | 3840 |
| CCCGTTAAGA | AACCAGGGAC | TAATGATTAT | AGGCCTGTCC | AGGATCTGAG | AGAAGTCAAC | 3900 |
| AAGCGGGTGG | AAGACATCCA | CCCCACCGTG | CCCAACCCCT | ACAACCTCTT | GAGCGGGCTC | 3960 |
| CCACCGTCCC | ACCAGTGGTA | CACTGTGCTT | GATTTAAAGG | ATGCCTTTTT | CTGCCTGAGA | 4020 |
| CTCCACCCCA | CCAGTCAGCC | TCTCTTCGCC | TTTGAGTGGA | GAGATCCAGA | GATGGGAATC | 4080 |

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Figure 7. hCMV+intron Sequence

| | | | | | | |
|-------------|-------------|-------------|------------|------------|------------|------|
| TCAGGACAAT | TGACCTGGAC | CAGACTCCCA | CAGGGTTTCA | AAAACAGTCC | CACCCTGTTT | 4140 |
| GATGAGGCAC | TGCACAGAGA | CCTAGCAGAC | TTCCGGATCC | AGCACCCAGA | CTTGATCCTG | 4200 |
| CTACAGTACG | TGGATGACTT | ACTGCTGGCC | GCCACTTCTG | AGCTAGACTG | CCAACAAGGT | 4260 |
| ACTCGGGCCC | TGTTACAAAC | CCTAGGGAAC | CTCGGGTATC | GGGCCTCGGC | CAAGAAAGCC | 4320 |
| CAAATTTGCC | AGAAACAGGT | CAAGTATCTG | GGGTATCTTC | TAAAAGAGGG | TCAGAGATGG | 4380 |
| CTGACTGAGG | CCAGAAAAGA | GACTGTGATG | GGGCAGCCTA | CTCCGAAGAC | CTCTCGACAA | 4440 |
| CTAAGGGAGT | TCCTAGGGAC | GGCAGGCTTC | TGTCGCCTCT | GGATCCCTGG | GTTTGCAGAA | 4500 |
| ATGGCAGCCC | CCTTGTACCC | TCTACACAAA | ACGGGGACTC | TGTTTAATTG | GGGCCCAGAC | 4560 |
| CAACAAAAGG | CCTATCAAGA | AATCAAGCAA | GCTCTTCTAA | CTGCCCCAGC | CCTGGGGTTG | 4620 |
| CCAGATTTGA | CTAAGCCCTT | TGAACTCTTT | GTCGACGAGA | AGCAGGGCTA | CGCCAAAGGT | 4680 |
| GTCCTAACGC | AAAAACTGGG | ACCTTGGCGT | CGGCCGGTGG | CCTACCTGTC | CAAAAAGCTA | 4740 |
| GACCCAGTAG | CAGCTGGGTG | GCCCCCTTGC | CTACGGATGG | TAGCAGCCAT | TGCCGTACTG | 4800 |
| ACAAAGGATG | CAGGCAAGCT | AACCATGGGA | CAGCCACTAG | TCATTCTGGC | CCCCCATGCA | 4860 |
| GTAGAGGCAC | TAGTCAAACA | ACCCCCCGAC | CGCTGGCTTT | CCAACGCCCG | GATGACTCAC | 4920 |
| TATCAGGCCT | TGCTTTTGGG | CACGGACCGG | GTCCAGTTCG | GACCGGTGGT | AGCCCTGAAC | 4980 |
| CCGGCTACGC | TGCTCCCACT | GCCTGAGGAA | GGGCTGCAAC | ACAACTGCCT | TGATATCCTG | 5040 |
| GCCGAAGCCC | ACGGAACCCG | ACCCGACCTA | ACGGACCAGC | CGCTCCCAGA | CGCCGACCAC | 5100 |
| ACCTGGTACA | CGGATGGAAG | CAGTCTCTTA | CAAGAGGGAC | AGCGTAAGGC | GGGAGCTGCG | 5160 |
| GTGACCACCG | AGACCGAGGT | AATCTGGGCT | AAAGCCCTGC | CAGCCGGGAC | ATCCGCTCAG | 5220 |
| CGGGCTGACA | TGATAGCACT | CACCCAGGCC | CTAAAGATGG | CAGAAGGTAA | GAAGCTAAAT | 5280 |
| GTTTATACTG | ATAGCCGTTA | TGCTTTTGCT | ACTGCCATA | TCCATGGAGA | AATATACAGA | 5340 |
| AGGCGTGGGT | TGCTCACATC | AGAAGGCAAA | GAGATCAAAA | ATAAAGACGA | GATCTTGCCG | 5400 |
| CTACTAAAAG | CCCTCTTTCT | GCCCCAAAAG | CTTAGCATAA | TCCATTGTCC | AGGACATCAA | 5460 |
| AAGGGACACA | GCGCCGAGGC | TAGAGGCAAC | CGGATGGCTG | ACCAAGCGGC | CCGAAAGGCA | 5520 |
| GCCATCACAG | AGACTCCAGA | CACCTCTACC | CTCCTCATAG | AAAATTCATC | ACCCTACACC | 5580 |
| TCAGAACATT | TTCATTACAC | AGTGAAGGAT | ATAAAGGACC | TAACCAAGTT | GGGGGCCATT | 5640 |
| TATGATAAAA | CAAAGAAGTA | TTGGGTCTAC | CAAGGAAAAC | CTGTGATGCC | TGACCAATTT | 5700 |
| ACTTTTGAAT | TATTAGACTT | TCTTCATCAG | CTGACTCACC | TCAGCTTCTC | AAAAATGAAG | 5760 |
| GCTCTCCTAG | AGAGAAGCCA | CAGTCCCTAC | TACATGCTGA | ACCGGGATCG | AACACTCAAA | 5820 |
| AATATCACTG | AGACCTGCAA | AGCTTGTCGA | CAAGTCAACG | CCAGCAAGTC | TGCCGTAAAA | 5880 |
| CAGGGAACCTA | GGGTCCGCGG | GCATCGGCCC | GGCACTCATT | GGGAGATCGA | TTTCCCGAG | 5940 |
| ATAAAGCCCG | GATTGTATGG | CTATAAATAT | CTTCTAGTTT | TTATAGATAC | TTTTTCTGGC | 6000 |
| TGGATAGAAG | CCTTCCCAAC | CAAGAAAGAA | ACCGCCAAGG | TCGTAACCAA | GAAGCTACTA | 6060 |
| GAGGAGATCT | TCCCCAGGTT | CGGCATGCCT | CAGGTATTGG | GAAGTACCAA | TGGGCCTGCC | 6120 |
| TTCGTCTCCA | AGGTGAGTCA | GACAGTGGCC | GATCTGTTGG | GGATTGATTG | GAAATTACAT | 6180 |
| TGTGCATACA | GACCCCAAAG | CTCAGGCCAG | GTAGAAAGAA | TGAATAGAAC | CATCAAGGAG | 6240 |
| ACTTTAACTA | AATTAACGCT | TGCAACTGGC | TCTAGAGACT | GGGTGCTCCT | ACTCCCCCTA | 6300 |
| GCCCTGTACC | GAGCCCGCAA | CACGCCGGGC | CCCCATGGCC | TCACCCCAT | TGAGATCTTA | 6360 |
| TATGGGGCAC | CCCCGCCCCC | TGTAAACTTC | CCTGACCCTG | ACATGACAAG | AGTTACTAAC | 6420 |
| AGCCCTCTCT | TCCAAGCTCA | CTTACAGGCT | CTCTACTTAG | TCCAGCACGA | AGTCTGGAGA | 6480 |
| CCTCTGGCGG | CAGCCTACCA | AGAACAACCTG | GACCGACCGG | TGGTACCTCA | CCCTTACCGA | 6540 |
| GTCGGCGACA | CAGTGTGGGT | CCGCCGACAC | CAGACTAAGA | ACCTAGAACC | TCGCTGGAAA | 6600 |
| GGACCTTACA | CAGTCCTGCT | GACCACCCCC | ACCGCCCTCA | AAGTAGACGG | CATCGCAGCT | 6660 |
| TGGATACACG | CCGCCCACGT | GAAGGCTGCC | GACCCCGGGG | GTGGACCATC | CTCTAGACTG | 6720 |
| ACATGGCGCG | TTCAACGCTC | TCAAAACCCC | TTAAAAATAA | GGTTAACCCG | CGAGGCCCCC | 6780 |
| TAATCCCCTT | AATTCTTCTG | ATGCTCAGAG | GGGTCAGTAC | TGCTTCGCCC | GGCTCCAGTG | 6840 |
| CGGCCCCAGC | GGCCACCATG | AAAACATTTA | ACATTTCTCA | ACAAGATCTA | GAATTAGTAG | 6900 |
| AAGTAGCGAC | AGAGAAGATT | ACAATGCTTT | ATGAGGATAA | TAAACATCAT | GTGGGAGCGG | 6960 |
| CAATTCGTAC | GAAAAACAGGA | GAAATCATTT | CGGCAGTACA | TATTGAAGCG | TATATAGGAC | 7020 |
| GAGTAACTGT | TTGTGCAGAA | GCCATTGCGA | TTGGTAGTGC | AGTTTCGAAT | GGACAAAAGG | 7080 |
| ATTTTGACAC | GATTGTAGCT | GTTAGACACC | CTTATTCTGA | CGAAGTAGAT | AGAAGTATTC | 7140 |
| GAGTGGTAAG | TCCTTGTGGT | ATGTGTAGGG | AGTTGATTTT | AGACTATGCA | CCAGATTGTT | 7200 |
| TTGTGTTAAT | AGAAATGAAT | GGCAAGTTAG | TCAAACTAC | GATTGAAGAA | CTCATTCAC | 7260 |
| TCAAAATATAC | CCGAAATTAA | AAGTTTTACC | ACCAAGCTTA | TCGAATTC | | 7308 |

Figure 8. hCMV+intronkaSD Sequence

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| | | | | | | |
|-------------|-------------|-------------|------------|-------------|-------------|------|
| AGATCTCCCCG | ATCCCCCTATG | GTCGACTCTC | AGTACAATCT | GCTCTGATGC | CGCATAGTTA | 60 |
| AGCCAGTATC | TGCTCCCTGC | TTGTGTGTTG | GAGGTCGCTG | AGTAGTGCGC | GAGCAAAATT | 120 |
| TAAGCTACAA | CAAGGCAAGG | CTTGACCGAC | AATTGCATGA | AGAATCTGCT | TAGGGTTAGG | 180 |
| CGTTTTGCGC | TGCTTCGCGA | TGTACGGGCC | AGATATACGC | GTTGACATTG | ATTATTGACT | 240 |
| AGTTATTAAT | AGTAATCAAT | TACGGGGTCA | TTAGTTTATA | GCCCATATAT | GGAGTTCGCG | 300 |
| GTTACATAAC | TTACGGTAAA | TGGCCCCGCT | GGCTGACCGC | CCAACGACCC | CCGCCCATTG | 360 |
| ACGTCAATAA | TGACGTATGT | TCCCATAGTA | ACGCCAATAG | GGACTTTCCA | TTGACGTCAA | 420 |
| TGGGTGGACT | ATTTACGGTA | AACTGCCCAC | TTGGCAGTAC | ATCAAGTGTA | TCATATGCCA | 480 |
| AGTACGCCCC | CTATTGACGT | CAATGACGGT | AAATGGCCCC | CCTGGCATTG | TGCCCAGTAC | 540 |
| ATGACCTTAT | GGGACTTTCC | TACTTGGCAG | TACATCTACG | TATTAGTCAT | CGCTATTACC | 600 |
| ATGGTGATGC | GGTTTTGGCA | GTACATCAAT | GGGCGTGGAT | AGCGGTTTGA | CTCACGGGGA | 660 |
| TTTCCAAGTC | TCCACCCCAT | TGACGTCAAT | GGGAGTTTGT | TTTGGCACCA | AAATCAACGG | 720 |
| GACTTTCCAA | AATGTCGTAA | CAACTCCGCC | CCATTGACGC | AAATGGCGCG | TAGGCGTGTA | 780 |
| CGGTGGGAGG | TCTATATAAG | CAGAGCTCTC | TGGCTAACTA | GAGAACCAC | TGCTTAACGT | 840 |
| GCTTATCGAA | ATGTCGACTG | AGAACTTCAG | GGTGAGTTTG | GGGACCCTTG | ATTGTTCTTT | 900 |
| CTTTTTTCGCT | ATTGTAAAAT | TCATGTTATA | TGGAGGGGGC | AAAGTTTTC | GGGTGTTGTT | 960 |
| TAGAATGGGA | AGATGTCCCT | TGTATCACCA | TGGACCCTCA | TGATAATTTT | GTTTCTTTTCA | 1020 |
| CTTTCTACTC | TGTTGACAA | CATTGTCTCC | TCTTATTTTC | TTTTCATTTT | CTGTAACTTT | 1080 |
| TTCTGTTAAAC | TTTAGCTTGC | ATTTGTAACG | AAATTTTAAA | TTCACTTTTG | TTTATTTGTC | 1140 |
| AGATTGTAAG | TACTTTCTCT | AATCACTTTT | TTTTCAAGGC | AATCAGGGTA | TATTATATTG | 1200 |
| TACTTCAGCA | CAGTTTTAGA | GAACAATTGT | TATAATTAAA | TGATAAGGTA | GAATATTTCT | 1260 |
| GCATATAAAT | TCTGGCTGGC | GTGGAATAT | TCTTATTGGT | AGAAACAAC | ACATCCTGGT | 1320 |
| CATCATCCTG | CTTTCTCTTT | TATGGTTACA | ATGATATACA | CTGTTTGAGA | TGAGGATAAA | 1380 |
| ATACTCTGAG | TCCAAACCGG | GCCCCCTCTG | TAAACCATGT | CATGCCCTTCT | TCTTTAACCCT | 1440 |
| ACAGCTCCTG | GGCAACGTGC | TGGTTGTTGT | GCTGTCTCAT | CATTTTGGCA | AGAATTGGCC | 1500 |
| GCAAGCTTCT | GCAGCATCGT | TCTGTGTTGT | CTCTGTCTGA | CTGTGTTTCT | GTATTTGTCT | 1560 |
| GAGAATATGG | GCCAGACTGT | TACCACTCCC | TAAAGTTTGA | CCTTAGGTCA | CTGGAAAGAT | 1620 |
| GTCGAGCGGA | TGCTCTGAG | CCAGTCGGTA | GATGTCAGGA | AGAGACGTTG | GGTTACCTTC | 1680 |
| TGCTCTGCAG | AATGGCCAAC | CTTTAACGTC | GAGATGGCCG | GAGACGGCAC | CTTTAACCGA | 1740 |
| GACCTCATCA | CCCAGGTTAA | GATCAAGGTC | TTTTCACCTG | GCCCCGATGG | ACACCCAGAC | 1800 |
| CAGGTCCCCCT | ACATCGTGAC | CTGGGAAGCC | TTGGCTTTTG | ACCCCCCTCC | CTGGGTCAAG | 1860 |
| CCCTTTGTAC | ACCCTAAGCC | TCCGCCTCCT | CTTCTCTCAT | CCGCCCCGTC | TCTCCCCCTT | 1920 |
| GAACCTCCTC | TGCTCGATCC | GCCTCGATCC | TTCCTTTATC | CAGCCCTCAC | TCCTTCTCTA | 1980 |
| GGCGCCAAAC | CTAAACCTCA | AGTTCTTTTCT | GACAGTGGGG | GGCCGCTCAT | CGACCTACTT | 2040 |
| ACAGAAGACC | CCCCGCCTTA | TAGGGACCCA | AGACCACCCC | CTTCCGACAG | GGACGGAAAT | 2100 |
| GGTGGAGAAG | CGACCCCTGC | GGGAGAGGCA | CCGGACCCCT | CCCCAATGGC | ATCTCGCCTA | 2160 |
| CGTGGGAGAC | GGGAGCCCCC | TGTGGCCGAC | TCCACTACCT | CGCAGGCATT | CCCCCTCCCG | 2220 |
| GCAGGAGGAA | ACGGAGAGTA | TCAATACTGG | CGTTTCTCCT | CTTCTGACCT | TTACAAGTGG | 2280 |
| AAAAATAATA | ACCCTTCTTT | TTCTGAAGAT | CCAGGTAAAC | TGACAGCTCT | GATCGAGTCT | 2340 |
| GTTCTCATCA | CCCATCAGCC | EACCTGGGAC | GACTGTCAGC | AGCTGTTGGG | GAATCTGCTG | 2400 |
| ACCGGAGAAG | AAAAACAACG | GGTGCTCTTA | GAGGCTAGAA | AGGCGGTGCG | GGGCGATGAT | 2460 |
| GGGCGCCCCA | CTCAACTGCC | CAATGAAGTC | GATGCCGCTT | TTCCCTTCGA | GCGCCAGAC | 2520 |
| TGGGATTACA | CCACCTAGGC | AGGACGCAAC | CACCTAGTCC | ACTATCGCCA | GTTGCTCCTA | 2580 |
| GCGGGTCTCC | AAAACGCGGG | CAGAAGCCCC | ACCAATTTGG | CCAAGGTAAA | AGGAATAACA | 2640 |
| CAAGGGCCCCA | ATGAGTCTCC | CTCGGCCTTC | CTAGAGAGAC | TTAAGGAAGC | CTATCGCAGG | 2700 |
| TACACTCCTT | ATGACCCTGA | GGACCCAGGG | CAAGAACTA | ATGTGTCTAT | GTCTTTCATT | 2760 |
| TGGCAGTCTG | CCCCAGACAT | TGGGAGAAAG | TTAGAGAGGT | TAGAAGATTT | AAAAACAAG | 2820 |
| ACGCTTGGAG | ATTTGGTTAG | AGAGGCGAGAA | AAGATCTTTA | ATAAACGAGA | AAACCCGGA | 2880 |
| GAAAGAGAGG | AACGTATCAG | GAGAGAAACA | GAGGAAAAAG | AAGAACGCGG | TAGGACAGAG | 2940 |
| GATGAGCAGA | AAGAGAAAGA | AAGAGATCGT | AGGAGACATA | GAGAGATGAG | CAAGCTATTG | 3000 |
| GCCACTGTCTG | TTAGTGAGCA | GAAACAGGAT | AGACAGGGAG | GAGAACGAAG | GAGGTCCCAA | 3060 |
| CTCGATCGCG | ACCAGTGTGC | CTACTGCAAA | GAAAAGGGGC | ACTGGGCTAA | AGATTGTCCC | 3120 |
| AAGAAACCCAC | GAGGACCTCG | GGGACCAAGA | CCCCAGACCT | CCCTCCTGAC | CCTAGATGAC | 3180 |
| TAGGGAGGTC | AGGGTCAGGA | GCCCCCCCCCT | GAACCCAGGA | TAACCCCTCA | AGTCGGGGGG | 3240 |
| CAACCCGTCA | CCTTCCTGGT | AGATACTGGG | GCCCAACACT | CCGTGCTGAC | CCAAAATCCT | 3300 |
| GGACCCCTAA | GTGATAAGTC | TGCCTGGGTC | CAAGGGGCTA | CTGGAGGAAA | GCGGTATCGC | 3360 |
| TGGACCAAGG | ATCGCAAAGT | ACATCTAGCT | ACCGGTAAGG | TCACCCACTC | TTTCCCTCCAT | 3420 |
| GTACCAGACT | GTCCCTATCC | TCTGTTAGGA | AGAGATTTGC | TGACTAAACT | AAAAGCCCAA | 3480 |
| ATCCACTTTG | AGGGATCAGG | AGCTCAGGTT | ATGGGACCAA | TGGGGCAGCC | CCTGCAAGTG | 3540 |
| TTGACCCATA | ATATAGAAGA | TGAGCATCGG | CTACATGAGA | CCTCAAAAGA | GCCAGATGTT | 3600 |
| TCTCTAGGGT | CCACATGGCT | GTCTGATTTT | CCTCAGGCCT | GGGCGGAAAC | CGGGGGCATG | 3660 |
| GGACTGGCAG | TCTCGCAAGC | TCCTCTGATC | ATACCTCTGA | AAGCAACCTC | TACCCCCGCTG | 3720 |
| TCCATAAAAC | AATACCCCAT | GTCACAAGAA | GCCAGACTGG | GGATCAAGCC | CCACATACAG | 3780 |
| AGACTGTTGG | ACCAGGGAAT | ACTGGTACCC | TGCCAGTCCC | CCTGGAACAC | GCCCCTGCTA | 3840 |
| CCCGTTAAGA | AACCAGGGAC | TAATGATTAT | AGGCCTGTCT | AGGATCTGAG | AGAAGTCAAC | 3900 |
| AAGCGGGTGG | AAGACATGCA | CCCCACCGTG | CCCAACCTCT | ACAACCTCTT | GAGCGGGCTC | 3960 |
| CCACCGTCCC | ACCAGTGGTA | CACGTGCTTT | GATTTAAAGG | ATGCCTTTTT | CTGCCTGAGA | 4020 |
| CTCCACCCCA | CCAGTCAGCC | TCTCTTCGCC | TTTGAGTGGA | GAGATCCAGA | GATGGGAATC | 4080 |

Figure 8. hCMV+intronkaSD Sequence

| | | | | | | |
|-------------|-------------|-------------|------------|-------------|-------------|------|
| TCAGGACAAT | TGACCTGGAC | CAGACTCCCA | CAGGGTTTCA | AAAACAGTCC | CACCCTGTTT | 4140 |
| GATGAGGCAC | TGCACAGAGA | CCTAGCAGAC | TTCCGGATCC | AGCACCCAGA | CTTGATCCTG | 4200 |
| CTACAGTACG | TGGATGACTT | ACTGCTGGCC | GCCACTTCTG | AGCTAGACTG | CCAACAAGGT | 4260 |
| ACTCGGGCCC | TGTTACAAAC | CCTAGGGAAC | CTCGGGTATC | GGGCCTCGGC | CAAGAAAGCC | 4320 |
| CAAATTTGCC | AGAAACAGGT | CAAGTATCTG | GGGTATCTTC | TAAAAGAGGG | TCAGAGATGG | 4380 |
| CTGACTGAGG | CCAGAAAAGA | GACTGTGATG | GGGCAGCCTA | CTCCGAAGAC | CCCTCGACAA | 4440 |
| CTAAGGGGAGT | TCCTAGGGAG | GGCAGGCTTC | TGTCGCCTCT | GGATCCCTGG | GTTTGCAGAA | 4500 |
| ATGGCAGCCC | CCTTGTACCC | TCTCACCAAA | ACGGGGACTC | TGTTTAATTG | GGGCCCAGAC | 4560 |
| CAACAAAAGG | CCTATCAAGA | AATCAAGCAA | GCTCTTCTAA | CTGCCCCAGC | CCTGGGGTTG | 4620 |
| CCAGATTTGA | CTAAGCCCTT | TGAACTCTTT | GTCGACGAGA | AGCAGGGCTA | CGCCAAAGGT | 4680 |
| GTCCTAACGC | AAAAACTGGG | ACCTTGCGGT | CGGCCGGTGG | CCTACCTGTC | CAAAAAGCTA | 4740 |
| GACCCAGTAG | CAGCTGGGTG | GCCCCCTTGC | CTACGGATGG | TAGCAGCCAT | TGCCGTACTG | 4800 |
| ACAAAGGATG | CAGGCAAGCT | AACCATGGGA | CAGCCACTAG | TCATTCTGGC | CCCCATGCA | 4860 |
| GTAGAGGCAC | TAGTCAAACA | ACCCCCGAC | CGCTGGCTTT | CCAACGCCCG | GATGACTCAC | 4920 |
| TATCAGGCCT | TGCTTTTGGG | CACGGACCGG | GTCCAGTTCG | GACCGGTGGT | AGCCCTGAAC | 4980 |
| CCGGCTACGC | TGCTCCCACT | GCCTGAGGAA | GGGCTGCAAC | ACAACCTGCCT | TGATATCCTG | 5040 |
| GCCGAAGCCC | ACGGAACCCG | ACCCGACCTA | ACGGACCAGC | CGCTCCCGAG | CGCCGACCAC | 5100 |
| ACCTGGTACA | CGGTCTGAAG | CAGTCTCTTA | CAAGAGGGAC | AGCGTAAGGC | GGGAGCTGCG | 5160 |
| GTGACCACCG | AGACCGAGGT | AATCTGGGCT | AAAGCCCTGC | CAGCCGGGAC | ATCCGCTCAG | 5220 |
| CGGGCTGAAC | TGATAGCACT | CACCCAGGCC | CTAAAGATGG | CAGAAGGTAA | GAAGCTAAAT | 5280 |
| GTTTATACTG | ATAGCCGTTA | TGCTTTTGCT | ACTGCCCAT | TCCATGGAGA | AATATACAGA | 5340 |
| AGGCGTGGGT | TGCTCACATC | AGAAGGCAAA | GAGATCAAAA | ATAAAGACGA | GATCTTGGCC | 5400 |
| CTACTAAAAG | CCCTCTTTCT | GCCCCAAAAG | CTTAGCATAA | TCCATTGTCC | AGGACATCAA | 5460 |
| AAGGGACACA | GCGCCGAGGC | TAGAGGCAAC | CGGATGGCTG | ACCAAGCGGC | CCGAAAGGCA | 5520 |
| GCCATCACAG | AGACTCCAGA | CACCTCTACC | CTCCTCATAG | AAAATTCATC | ACCCTACACC | 5580 |
| TCAGAACATT | TTCATTACAC | AGTGACTGAT | ATAAAGGACC | TAACCAAGTT | GGGGGCCATT | 5640 |
| TATGATAAAA | CAAAGAAGTA | TTGGGTCTAC | CAAGGAAAAC | CTGTGATGCC | TGACCAGTTT | 5700 |
| ACTTTTGAAT | TATTAGACTT | TCTTCATCAG | CTGACTCACC | TCAGCTTCTC | AAAAATGAAG | 5760 |
| GCTCTCCTAG | AGAGAAGCCA | CAGTCCCTAC | TACATGCTGA | ACCGGGATCG | AACACTCAAA | 5820 |
| AATATCACTG | AGACCTGCAA | AGCTTGTGCA | CAAGTCAACG | CCAGCAAGTC | TGCCGTAAAA | 5880 |
| CAGGGAACTA | GGGTCCGCGG | GCATCGGCCC | GGCACTCATT | GGGAGATCGA | TTTCACCGAG | 5940 |
| ATAAAGCCCG | GATTGTATGG | CTATAAATAT | CTTCTAGTTT | TTATAGATAC | CTTTTCTGGC | 6000 |
| TGGATAGAAG | CCTTCCCAAC | CAAGAAAGAA | ACCGCCAAGG | TCGTAACCAA | GAAAGCTACTA | 6060 |
| GAGGAGATCT | TCCCCAGGTT | CGGCATGCCT | CAGGTATTGG | GAAC TGACAA | TGGGCCTGCC | 6120 |
| TTCGTCTCCA | AGGTGAGTCA | GACAGTGGCC | GATCTGTTGG | GGATTGATTG | GAAATTACAT | 6180 |
| TGTGCATACA | GACCCCAAAG | CTCAGGCCAG | GTAGAAAGAA | TGAATAGAAC | CATCAAGGAG | 6240 |
| ACTTTAACTA | AATTAACGCT | TGCAACTGGC | TCTAGAGACT | GGGTGCTCCT | ACTCCCCTTA | 6300 |
| GCCCTGTACC | GAGCCCGCAA | CACGCCGGGC | CCCCATGGCC | TCACCCCAT | TGAGATCTTA | 6360 |
| TATGGGGCAC | CCCCGCCCT | TGTAAACTTC | CCTGACCTTG | ACATGACAAG | AGTTACTAAC | 6420 |
| AGCCCTCTC | TCCAAGCTCA | ETTACAGGCT | CTCTACTTAG | TCCAGCACGA | AGTCTGGAGA | 6480 |
| CCTCTGGCGG | CAGCCTACCA | AGAACAACCTG | GACCGACCGG | TGGTACCTCA | CCCTTACCGA | 6540 |
| CTCGCGCACA | CAGTGTGGGT | CCGCCGACAC | CAGACTAAGA | ACCTAGAACC | TCGCTGGAAA | 6600 |
| GGACCTTACA | CAGTCCTGCT | GACCACCCCC | ACCGCCCTCA | AAGTAGACGG | CATCGCAGCT | 6660 |
| TGGATACACG | CCGCCACGCT | GAAGGCTGCC | GACCCCGGGG | GTGGACCATC | CTCTAGACTG | 6720 |
| ACATGGCGCG | TTCAACGCTC | TCAAAACCCC | TTAAAAATAA | GGTTAACCCG | CGAGGCCCCC | 6780 |
| TAATCCCCTT | AATTCTTCTG | ATGCTCAGAG | GGGTCAGTAC | TGCTTCGCCC | GGCTCCAGTG | 6840 |
| CGGCCAGCC | GGCCACCATG | AAAACATTTA | ACATTCTCTA | ACAAGATCTA | GAATTAGTAG | 6900 |
| AAGTAGCGAC | AGAGAAGATT | ACAATGCTTT | ATGAGGATAA | TAAACATCAT | GTGGGAGCGG | 6960 |
| CAATTTCGTAC | GAAAACAGGA | GAAATCATTT | CGGCAGTACA | TATTGAAGCG | TATATAGGAC | 7020 |
| GAGTAACTGT | TTGTGCAGAA | GCCATTGCGA | TTGGTAGTGC | AGTTTTCGAAT | GGACAAAAGG | 7080 |
| ATTTTGACAC | GATTGTAGCT | GTTAGACACC | CTTATTCTGA | CGAAGTAGAT | AGAAGTATTC | 7140 |
| GAGTGGTAAG | TCCTTGTTGGT | ATGTGTAGGG | AGTTGATTTC | AGACTATGCA | CCAGATTGTT | 7200 |
| TTGTGTTAAT | AGAAATGAAT | GGCAAGTTAG | TCAAAAATAC | GATTGAAGAA | CTCATTCCAC | 7260 |
| TCAAATATAC | CCGAAATTAA | AAGTTTTTACC | ACCAAGCTTA | TCGAATTC | | 7308 |

Figure 9. FBdelPASAF Sequence

| | | | | | | |
|-------------|-------------|-------------|------------|------------|-------------|------|
| CATATGCGGT | GTGAAATACC | GCACAGATGC | GTAAGGAGAA | AATACCGCAT | CAGGCGCCAT | 60 |
| TCGCCATTCA | GGCTGCGCAA | CTGTTGGGAA | GGGCGATCGG | TGCGGGCCTC | TTCGCTATTA | 120 |
| CGCCAGCTGG | CGAAAGGGGG | ATGTGCTGCA | AGGCGATTAA | GTTGGGTAAC | GCCAGGGTTT | 180 |
| TCCCAGTCAC | GACGTTGTAA | AACGACGGCC | AGTGAATTCC | GATTAGTTCA | ATTTGTTAAA | 240 |
| GACAGGATCT | CAGTAGTCCA | GGCTTTAGTC | CTGACTCAAC | AATACCACCA | GCTAAAACCA | 300 |
| CTAGAATACG | AGCCACAATA | AATAAAAGAT | TTTATTTAGT | TTCCAGAAAA | AGGGGGGAAT | 360 |
| GAAAGACCCC | ACCAAATTGC | TTAGCCTGAT | AGCCGCAGTA | ACGCCATTTT | GCAAGGCATG | 420 |
| GAAAAATACC | AAACCAAGAA | TAGAGAAGTT | CAGATCAAGG | GCGGGTACAC | GAAAAACAGCT | 480 |
| AACGTTGGGC | CAACACAGGAT | ATCTGCGGTG | AGCAGTTTCG | GCCCCGGCCC | GGGGCCAAGA | 540 |
| ACAGATGGTC | ACCGCGGTTT | GGCCCCGGCC | CGGGGCCAAG | AACAGATGGT | CCCCAGATAT | 600 |
| GGCCCAACCC | TCAGCAGTTT | CTTAAGACCC | ATCAGATGTT | TCCAGGCTCC | CCCAAGGACC | 660 |
| TGAAATGACC | CTGTGCCTTA | TTTGAATTAA | CCAATCAGCC | TGCTTCTCGC | TTCTGTTTCG | 720 |
| CGCCTTCTGC | TTCCCGAGCT | CTATAAAAGA | GCTCACAACC | CCTCACTCGG | CGCGCCAGTC | 780 |
| CTCCGATAGA | CTGAGTCGCC | CGGGTACCCG | TGTATCCAAT | AAATCCTCTT | GCTGTTGCAT | 840 |
| CCGACTCGTG | GTCTCGCTGT | TCCTTGCGGAG | GGTCTCCTCA | GAGTGATTGA | CTACCCGTCT | 900 |
| CGGGGGTCTT | TCATTTGGGG | GCTCGTCCGG | GATCTGGAGA | CCCCTGCCCA | GGGACCACCG | 960 |
| ACCCACCACC | GGGAGGTAAG | CTGGCCAAGA | TCTTATATGG | GGCACCCCCG | CCCCCTGTAA | 1020 |
| ACTTCCCTGA | CCTTGACATG | ACCAGAGTTA | CTAACAGCCC | CTCTCTCCAA | GCTCACTTAC | 1080 |
| AGGCTCTCTA | CTTAGTCCAG | CACGAAGTTT | GGAGACCACT | GGCGGCAGCT | TACCAAGAAC | 1140 |
| AACTGGACCG | GCCGGTGGTG | CCTCACCCCT | ACCGGGTCGG | CGACACAGTG | TGGGTCCGCC | 1200 |
| GACATCAAAC | CAAGAACCTA | GAACCTCGCT | GGAAAGGACC | TTACACAGTC | CTGCTGACCA | 1260 |
| CCCCCACC GC | CCTCAAAGTA | GACGGTATCG | CAGCTTGGAT | ACACGCAGCC | CACGTAAAGG | 1320 |
| CGGCCGACAC | CGAGAGTGA | CCATCCTCTG | GACGGACATG | GCGCGTTCAA | CGCTCTCAAA | 1380 |
| ACCCCTCAAA | GATAAGATTA | ACCCGTGGAA | GCCCTTAATA | GTCATGGGAG | TCCTTTAGG | 1440 |
| AGTAGGGATG | GCAGAGAGCC | CCCATCAGGT | CTTTAATGTA | ACCTGGAGAG | TCACCAACCT | 1500 |
| GATGACTGGG | CGTACCGCCA | ATGCCACCTC | CCTCCTGGGA | ACTGTACAAG | ATGCCTTCCC | 1560 |
| AAAATTATAT | TTTGATCTAT | GTGATCTGGT | CGGAGAGGAG | TGGGACCCTT | CAGACCAGGA | 1620 |
| ACCGTATGTC | GGGTATGGCT | GCAAGTACCC | CGCAGGGAGA | CAGCGGACCC | GGACTTTTGA | 1680 |
| CTTTTACGTG | TGCCCTGGGC | ATACCGTAAA | GTCGGGGTGT | GGGGGACCAG | GAGAGGCGTA | 1740 |
| CTGTGGTAAA | TGGGGGTGTG | AAACCACCGG | ACAGGCTTAC | TGGAAGCCCA | CATCATCGTG | 1800 |
| GGACCTAATC | TCCCTTAAGC | GCGGTAACAC | CCCCTGGGAC | ACGGGATGCT | CTAAAGTTGC | 1860 |
| CTGTGGCCCC | TGCTACGACC | TCTCCAAAGT | ATCCAATTCC | TTCCAAGGGG | CTACTCGAGG | 1920 |
| GGGCAGATAG | AACCTCTAGC | TCCTAGAATT | CACCTGATGA | GGAAAAAAGG | CTAATCGGGA | 1980 |
| CGGGCCCAAA | TCGTGGGGAC | TGAGACTGTA | CCGGACAGGA | ACAGATCCTA | TTACCATGTT | 2040 |
| CTCCCTGACC | CGGCAGGTCC | TTAATGTGGG | ACCCCGAGTC | CCCATAGGGC | CCAACCCAGT | 2100 |
| ATTACCCGAC | CAAAGACTCC | CTTCCTCACC | AATAGAGATT | GTACCGGCTC | CACAGCCACC | 2160 |
| TAGCCCCCTC | AATACCAGTT | ACCCCCCTTC | CACTACCAGT | ACACCCTCAA | CCTCCCCCTAC | 2220 |
| AAGTCCCAAG | GTCCCAAGC | CACCCCAAGG | AACCTGGAGT | AGACTACTAG | CTCTAGTCAA | 2280 |
| AGGAGCCTAT | CAGGCGCTTA | ACCTCACCAA | TCCCGACAAG | ACCCAAGAAT | GTTGGCTGTG | 2340 |
| CTTAGTGTCG | GGACCTCCTT | ATTACGAAGG | AGTAGCGGTC | GTGGGCACTT | ATACCAATCA | 2400 |
| TTCCACCGCT | CCGGCCAAC | GTACGGCCAC | TTCCCAACAT | AAGCTTACCC | TATCTGAAGT | 2460 |
| GACAGGACAG | GGCCTATGCA | TGGGGGACAG | ACCTAAAACT | CACCAGGCCT | TATGTAACAC | 2520 |
| CACCCAAAGC | GCCGGCTCAG | GATCCTACTA | CCTTGCAGCA | CCCCTCCGAA | CAATGTGGGC | 2580 |
| TTGCAGCACT | GGATTGACTC | CCTGCTTGTC | CACCACGGTG | CTCAATCTAA | CCACAGATTA | 2640 |
| TTGTGTATTA | GTTGAACTCT | GGCCCAGAGT | AATTTACCAC | TCCCCCGATT | ATATGTATGG | 2700 |
| TCAGCTTGAA | CAGCGTACCA | AATATAAAAG | AGAGCCAGTA | TCATTGACCC | TGGCCCTTCT | 2760 |
| ACTAGGAGGA | TTAACCATTG | GAGGGATTGC | AGCTGGAATA | GGGACGGGGA | CCACTGCCTT | 2820 |
| AATTAATAAC | CAGCAGTTTG | AGCAGCTTTC | TGCCGCTATC | CAGACAGACC | TCAACGAAGT | 2880 |
| CGAAAAGTCA | ATTACCAACC | TAGAAAAGTC | ACTGACCTCG | TTGTCTGAAG | TAGTCTTACA | 2940 |
| GAACCGCAGA | GGCCTAGATT | TGCTATTCCCT | AAAGGAGGGA | GGTCTCTGCG | CAGCCCTAAA | 3000 |
| AGAAGAATGT | TGTTTTTATG | CAGACCACAC | GGGGCTAGTG | AGAGACAGCA | TGGCCAAATT | 3060 |
| AAGAGAAAAG | CTTAATCAGA | GACAAAAACT | ATTTGAGACA | GGCCAAGGAT | GGTTCGAAGG | 3120 |
| GCTGTTTAA | AGATCCCCCT | GGTTTACCAC | CTTAATCTCC | ACCATCATGG | GACCTCTAAT | 3180 |
| AGTACTCTTA | CTGATCTTAC | TCTTTGGACC | TTGCATTCTC | AATCGATTAG | TTCAATTTGT | 3240 |
| TAAAGACAGG | ATCTCAGTAG | TCCAGGCTTT | AGTCCTGACT | CAACAATACC | ACCAGCTAAA | 3300 |
| GCCTATAGAG | TACGAGCCAT | AGGGCGCCTA | GTGTTGACAA | TTAATCATCG | GCATAGTATA | 3360 |
| CGGCATAGTA | TAATACGACT | CACATATAGG | GGGCCACCAT | GGCCAAGTTG | ACCAGTGCCG | 3420 |
| TTCCGGTGCT | CACCGCGCGC | GACGTCGCCG | GACGCGTCEA | GTTCTGGACC | GACCGGCTCG | 3480 |
| GGTTCTCCCG | GGACTTCGTG | GAGGACGACT | TCGCCGGTGT | GGTCCGGGAC | GACGTGACCC | 3540 |
| TGTTTCATCAG | CGCGGTCCAG | GACCAGGTGG | TGCCGGACAA | CACCCTGGCC | TGGGTGTGGG | 3600 |
| TGCGCGGCTG | GGACGAGCTG | TACGCCGAGT | GGTCGGAGGT | CGTGTCCACG | AACTTCCGGG | 3660 |
| ACGCCTCCGG | GCCGGCCATG | ACCGAGATCG | CGCAGCAGCC | GTGGGGGCGG | GAGTTCCGCC | 3720 |
| TGCGCGACCC | GGCCGGCAAC | TGCGTGCAC | TCGTGGCCGA | GGAGCAGGAC | TGANNNNCGG | 3780 |
| ACCGGTCGAC | TTGTTAAC | GTTTATTGCA | GCTTATAATG | GTTACAAATA | AAGCAATAGC | 3840 |
| ATCACAATTT | TCACAATAAA | AGCATTTTTT | TCACTGCATT | CTAGTTGTGG | TTTGTCCAAA | 3900 |
| CTCATCAATG | TATCTTATCA | TGTCTGGATC | CAGATCTGGG | CCCATGCGGG | CGCGGATCGA | 3960 |
| TNNNNACATG | TGAGCAAAAG | GCCAGCAAAA | GGCCAGGAAC | CGTAAAAAAG | CCGCGTTGCT | 4020 |
| GGCGTTTTTTC | CATAGGCTCC | GCCCCCTGA | CGAGCATCAC | AAAAATCGAC | GCTCAAGTCA | 4080 |

Figure 9. FBdelPASAF Sequence

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| | | | | | | |
|------------|-------------|-------------|-------------|-------------|------------|------|
| GAGGTGGCGA | AACCCGACAG | GACTATAAAG | ATACCAGGCG | TTTCCCCCTG | GAAGCTCCCT | 4140 |
| CGTGCGCTCT | CCTGTTCCGA | CCCTGCCGCT | TACCGGATAC | CTGTCCGCCT | TTCTCCCTTC | 4200 |
| GGGAAGCGTG | GCGCTTTCTC | AATGCTCACG | CTGTAGGTAT | CTCAGTTCGG | TGTAGGTCGT | 4260 |
| TCGCTCCAAG | CTGGGCTGTG | TGCACGAACC | CCCCGTTTCT | CCCGACCGCT | GCGCCTTATC | 4320 |
| CGGTAACAT | CGTCTTGAGT | CCAACCCGGT | AAGACACGAC | TTATCGCCAC | TGGCAGCAGC | 4380 |
| CACTGGTAAC | AGGATTAGCA | GAGCGAGGTA | TGTAGGCGGT | GCTACAGAGT | TCTTGAAGTG | 4440 |
| GTGGCCTAAC | TACGGCTACA | CTAGAAGGAC | AGTATTGGT | ATCTGCGCTC | TGCTGAAGCC | 4500 |
| AGTTACCTTC | GGAAAAAGAG | TTGGTAGCTC | TTGATCCGGC | AAACAAACCA | CCGCTGGTAG | 4560 |
| CGGTGGTTTT | TTTGTGTTGCA | AGCAGCAGAT | TACGCGCAGA | AAAAAAGGAT | CTCAAGAAGA | 4620 |
| TCCTTTGATC | TTTTCTACGG | GGTCTGACGC | TCAGTGGAAC | GAAAACTCAC | GTTAAGGGAT | 4680 |
| TTTGGTCATG | AGATTATCAA | AAAGGATCTT | CACCTAGATC | CTTTTAAATT | AAAAATGAAG | 4740 |
| TTTTAAATCA | ATCTAAAGTA | TATATGAGTA | AACCTGGTCT | GACAGTTACC | AATGCTTAAT | 4800 |
| CAGTGAGGCA | CCTATCTCAG | CGATCTGTCT | ATTTTCGTTCA | TCCATAGTTG | CCTGACTCCC | 4860 |
| CGTCGTGTAG | ATAACTACGA | TACGGGAGGG | CTTACCATCT | GGCCCCAGTG | CTGCAATGAT | 4920 |
| ACCGCGAGAC | CCACGCTCAC | CGGCTCCAGA | TTTATCAGCA | ATAAACCAGC | CAGCCGGAAG | 4980 |
| GGCCGAGCGC | AGAAGTGGTC | CTGCAACTTT | ATCCGCCTCC | ATCCAGTCTA | TTAATTGTTG | 5040 |
| CCGGGAAGCT | AGAGTAAGTA | GTTCCGCCAGT | TAATAGTTTG | CGCAACGTTG | TTGCCATTGC | 5100 |
| TACAGGCATC | GTGGTGTCAC | GCTCGTCGTT | TGGTATGGCT | TCATTTCAGCT | CCGGTTCCCA | 5160 |
| ACGATCAAGG | CGAGTTACAT | GATCCCCCAT | GTTGTGCAAA | AAAGCGGTTA | GCTCCTTCGG | 5220 |
| TCCTCCGATC | GTTGTCAGAA | GTAAGTTGGC | CGCAGTGTTA | TCACTCATGG | TTATGGCAGC | 5280 |
| ACTGCATAAT | TCTCTTACTG | TCATGCCATC | CGTAAGATGC | TTTTCTGTGA | CTGGTGAGTA | 5340 |
| CTCAACCAAG | TCATTCTGAG | AATAGTGTAT | GCGGCGACCG | AGTTGCTCTT | GCCCGGCGTC | 5400 |
| AATACGGGAT | AATACCGCGC | CACATAGCAG | AACTTTAAAA | GTGCTCATCA | TTGGAAAACG | 5460 |
| TTCTTCGGGG | CGAAAACTCT | CAAGGATCTT | ACCGCTGTTG | AGATCCAGTT | CGATGTAACC | 5520 |
| CACTCGTGCA | CCCAACTGAT | CTTCAGCATC | TTTTACTTTC | ACCAGCGTTT | CTGGGTGAGC | 5580 |
| AAAAACAGGA | AGGCAAAATG | CCGCAAAAAA | GGGAATAAGG | GCGACACGGA | AATGTTGAAT | 5640 |
| ACTCATACTC | TTCTTTTTC | AATATTATTG | AAGCATTAT | CAGGGTTATT | GTCTCATGAG | 5700 |
| CGGATACATA | TTTGAATGTA | TTTAGAAAAA | TAAACAAATA | GGGGTTCCGC | GCACATTTC | 5760 |
| CCGAAAAGTG | CCACCTGACG | TCTAAGAAAC | CATTATTATC | ATGACATTAA | CCTATAAAAA | 5820 |
| TAGGCGTATC | ACGAGGCCCT | TTCGTCTCGC | GCGTTTTCGGT | GATGACGGTG | AAAACCTCTG | 5880 |
| ACACATGCAG | CTCCCGGAGA | CGGTCACAGC | TTGTCTGTAA | GCGGATGCCG | GGAGCAGACA | 5940 |
| AGCCCGTCAG | GGCGCGTCAG | CGGGTGTTGG | CGGGTGTCGG | GGCTGGCTTA | ACTATGCGGC | 6000 |
| ATCAGAGCAG | ATTGTACTGA | GAGTGAC | | | | 6028 |

Figure 10. FBdelPMOSAF Sequence

1

| | | | | | | |
|------------|-------------|------------|------------|-------------|-------------|------|
| CATATGCGGT | GTGAAATACC | GCACAGATGC | GTAAGGAGAA | AATACCGCAT | CAGGCGCCAT | 60 |
| TCGCCATTCA | GGCTGCGCAA | CTGTTGGGAA | GGGCGATCGG | TGCGGGCCTC | TTCGCTATTA | 120 |
| CGCCAGCTGG | CGAAAGGGGG | ATGTGCTGCA | AGGCGATTAA | GTTGGGTAAC | GCCAGGGTTT | 180 |
| TCCCAGTCAC | GACGTTGTAA | AACGACGGCC | AGTGAATTCC | GATTAGTTCA | ATTTGTTAAA | 240 |
| GACAGGATCT | CAGTAGTCCA | GGCTTTAGTC | CTGACTCAAC | AATACCACCA | GCTAAAACCA | 300 |
| CTAGAATACG | AGCCACAATA | AATAAAAGAT | TTTATTTAGT | TTCCAGAAAA | AGGGGGGAAT | 360 |
| GAAAGACCCC | ACCAAATTGC | TTAGCCTGAT | AGCCGCGATA | ACGCCATTTT | GCAAGGCATG | 420 |
| GAAAAATACC | AAACCAAGAA | TAGAGAAGTT | CAGATCAAGG | GCGGGTACAC | GAAAAACAGT | 480 |
| AACGTTGGGC | CAAACAGGAT | ATCTGCGGTG | AGCAGTTTCG | GCCCCGGCCC | GGGGCCAAGA | 540 |
| ACAGATGGTC | ACCGCGGTTT | GGCCCCGGCC | CGGGGCCAAG | AACAGATGGT | CCCCAGATAT | 600 |
| GGCCCAACCC | TCAGCAGTTT | CTTAAGACCC | ATCAGATGTT | TCCAGGCTCC | CCCAAGGACC | 660 |
| TGAAATGACC | TTTGAATTAA | CCAATCAGCC | TGCTTCTCGC | TTCTGTTTCG | CGCGCCAGTC | 720 |
| GCGCTTCTGC | TTCCCAGACT | CTATAAAAGA | GCTCACAACC | CCTCACTCGG | CGCGCCAGTC | 780 |
| CTCCGATAGA | CTGAGTCGCC | CGGGTACCCG | TGTATCCAAT | AAATCCTCTT | GCTGTTGCAT | 840 |
| CCGACTCGTG | GTCTCGCTGT | TCCTTGGGAG | GGTCTCCTCA | GAGTGATTGA | CTACCCGTCT | 900 |
| CGGGGTCTT | TCATTTGGGG | GCTCGTCCGG | GATCTGGAGA | CCCCTGCCCC | GGGACCACCG | 960 |
| ACCCACCACC | GGGAGGTAAG | CTGGCCAAGA | TCTTATATGG | GGCACCCTCC | CCCCTTGTAA | 1020 |
| ACTTCCCTGA | CCCTGACATG | ACAAGAGTTA | CTAACAGCCC | CTCTCTCCAA | GCTCACTTAC | 1080 |
| AGGCTCTCTA | CTTAGTCCAG | CACGAAGTCT | GGAGACCTCT | GGCGGCAGCC | TACCAAGAAC | 1140 |
| AACTGGACCG | ACCGGTGGTA | CCTCACCCCT | ACCGAGTCGG | CGACACAGTG | TGGGTCCGCC | 1200 |
| GACACCAGAC | TAAGAACCTA | GAACCTCGCT | GGAAAGGACC | TTACACAGTC | CTGCTGACCA | 1260 |
| CCCCACCCG | CCTCAAAGTA | GACGGCATCG | CAGCTTGGAT | ACACGCCGCC | CACGTGAAGG | 1320 |
| CTGCCGACCC | CGGGGGTGGG | CCATCCTCTA | GACTGACATG | GCGCGTTCAA | CGCTCTCAAA | 1380 |
| ACCCCTTAAA | AATAAGGTTA | ACCCGCGAGG | CCCCCTAATC | CCCTTAATTC | TTCTGATGCT | 1440 |
| CAGAGGGGTC | AGTACTGCTT | CGCCCGGCTC | CAGTCTCAT | CAAGTCTATA | ATATCACCTG | 1500 |
| GGAGGTAACC | AATGGAGATC | GGGAGACGGT | ATGGGCAACT | TCTGGCAACC | ACCCTCTGTG | 1560 |
| GACCTGGTGG | CCTGACCTTA | CCCCAGATTT | ATGTATGTTA | GCCCCCATG | GACCATCTTA | 1620 |
| TTGGGGGCTA | GAATATCAAT | CCCCTTTTTC | TTCTCCCCCG | GGGCCCCCTT | GTTGCTCAGG | 1680 |
| GGGCAGCAGC | CCAGGCTGTT | CCAGAGACTG | CGAAGAACCT | TTAACCTCCC | TCACCCCTCG | 1740 |
| GTGCAACACT | GCCTGGAACA | GACTCAAGCT | AGACCAGACA | ACTCATAAAT | CAAATGAGGG | 1800 |
| ATTTTATGTT | TGCCCCGGGG | CCCACCGCCC | CCGAGAATCC | AAGTCATGTG | GGGGTCCAGA | 1860 |
| CTCCTTCTAC | TGTGCTTATT | GGGGCTGTGA | GACAACCGGT | AGAGCTTACT | GGAAGCCCTC | 1920 |
| CTCATCATGG | GATTTTCATCA | CAGTAAACAA | CAATCTCACC | TCTGACCAGG | CTGTCCAGGT | 1980 |
| ATGCAAAGAT | AATAAGTGGT | GCAACCCCTT | AGTTATTCCG | TTTACAGACG | CCGGGAGACG | 2040 |
| GGTTACTTCC | TGGACCACAG | GACATTACTG | GGGCTTACGT | TTGTATGTCT | CCGGACAAGA | 2100 |
| TCCAGGGCTT | ACATTGGGA | TCCGACTCAG | ATACCAAAAT | CTAGGACCCC | GCGTCCCAAT | 2160 |
| AGGGCCAAAC | CCCGTTCTGG | CAGACCAACA | GCCACTCTCC | AAGCCCAAAC | CTGTTAAGTC | 2220 |
| GCCTTCAGTC | ACCAAACCAC | CCAGTGGGAC | TCCTCTCTCC | CCTACCCAAC | TTCCACCGGC | 2280 |
| GGGAACGGAA | AATAGGCTGC | TAAACTTAGT | AGACGGAGCC | TACCAAGCCC | TCAACCTCAC | 2340 |
| CAGTCCTGAC | AAAACCCAAG | AGTGCTGGTT | GTGTCTAGTA | GCGGGACCCC | CCTACTACGA | 2400 |
| AGGGGTTGCC | CTTACTGGTA | CCCTGTCCGA | AGTGACCGGA | CAGGGACTCT | GCATAGGAGC | 2460 |
| GGCCTCCCAA | CACAAGTTGA | CCCTATGTAA | TACCACCCAG | ACAAGCAGTC | GAGGGTCCCTA | 2520 |
| AGTTCCCAAA | ACACATCAGG | GTACCATGTG | GGCTTGTAGT | ACCGGGCTTA | CTCCATGCAT | 2580 |
| TTATCTAGTT | GCCCCACAG | TTACCACTGA | TTATTGTGTT | CTTGTCGAAC | TCTGGCCAAG | 2640 |
| CTCCACCACC | ATACTGAACC | GCTATGTTTA | CGGCCTGTTT | GAGAGATCCA | ACCGACACAA | 2700 |
| AGTCACCTAT | ACTTCCCCCA | CCCTGGCCCT | ATTATTGGGT | GGACTAACCA | TGGGGGGAAT | 2760 |
| AAGAGAACCG | GTGTCGTTAA | GGACTACTGC | TCTAATGGCC | ACTCAGCAAT | TCCAGCAGCT | 2820 |
| TGCCGCTGGA | ATAGGAACAG | ATCTCAGGGA | GGTTGAAAAA | TCAATCTCTA | ACCTAGAAAA | 2880 |
| CCAAGCCGCA | GTACAGGATG | AAGTTGTCTT | ACAGAATCGA | AGGGGCCTAG | ACTTGTATT | 2940 |
| GTCTCTCACT | TCCCTGTCTG | GTGCTGCTCT | AAAAGAAGAA | TGTTGCTTCT | ATGCGGACCA | 3000 |
| TCTAAAAGAA | GGAGGGCTGT | GCATGGCCAA | ATTGAGAGAG | AGGCTTAATC | AGAGACAGAA | 3060 |
| CACAGGACTA | GTGAGAGACA | GATGGTTTGA | GGGACTGTTT | AACAGATCCC | CTTGGTTTAC | 3120 |
| ACTGTTTGAG | TCAACTCAAG | TGGGACCCCT | CATTGTACTC | CTAATGATTT | TGCTCTTCGG | 3180 |
| CACCTTGATA | TCTACCATTA | TAGTTCAATT | TGTTAAAGAC | AGGATCTCAG | TAGTCCAGGC | 3240 |
| ACCCTGCATT | CTTAATCGAT | ACCACCAGCT | AAAGCCTATA | GAGTACGAGC | CATAGGGCGC | 3300 |
| TTTAGTCCTG | ACTCAACAAT | TCGGCATAGT | ATACGGCATA | GTATAATACG | ACTCACTATA | 3360 |
| CTAGTGTTGA | CAATTAATCA | TTGACCAGTG | CCGTTCCGGT | GCTCACC CGC | CGCGACGTCG | 3420 |
| GGAGGGCCAC | CATGGCCAAG | ACCGACCGGC | TCGGGTTCCT | CCGGGACTTC | GTGGAGGACG | 3480 |
| CCGGAGCCGT | CGAGTTCTGG | GACGACGTGA | CCCTGTTTAT | CAGCGCGGTC | CAGGACCAGG | 3540 |
| ACTTCGCCGG | TGTGGTCCGG | GCCTGGGTGT | GGGTGCGCGG | CCTGGACGAG | CTGTACCGCG | 3600 |
| TGGTGCCGGA | CAACACCTTG | ACGAACCTCC | GGGACGCCCT | CGGGCCGGCC | ATGACCGAGA | 3660 |
| AGTGGTCGGA | GGTCGTGTCC | CGGGAGTTCC | CCCTGCGCGA | CCCGGCCGGC | AACCTGCGTG | 3720 |
| TCGGCGAGCA | GCCGTGGGGG | GACTGANNNN | CGGACCGGTC | GACTTGTTAA | CTTGTTTATT | 3780 |
| ACTTCGTGGC | CGAGGAGCAG | ATAAAGCAAT | AGCATCACAA | ATTTACACAA | TAAAGCATTT | 3840 |
| GCAGCTTATA | ATGGTTACAA | TGGTTTGTCC | AAACTCATCA | ATGTATCTTA | TCATGTCTGG | 3900 |
| TTTTCACTGC | ATTCTAGTTG | GGCCGCGGAT | CGATNNNNAC | ATGTGAGCAA | AAGGCCAGCA | 3960 |
| ATCCAGATCT | GGGCCCATGC | AGGCCGCGTT | GCTGGCGTTT | TTCCATAGGC | TCCGCCCCCC | 4020 |
| AAAGGCCAGG | AACCGTAAAA | | | | | 4080 |

Figure 10. FBdelPMOSAF Sequence

| | | | | | | |
|-------------|------------|-------------|------------|------------|------------|------|
| TGACGAGCAT | CACAAAAATC | GACGCTCAAG | TCAGAGGTGG | CGAAACCCGA | CAGGACTATA | 4140 |
| AAGATACCAG | GCGTTTCCCC | CTGGAAGCTC | CCTCGTGCGC | TCTCCTGTTC | CGACCCTGCC | 4200 |
| GCTTACCGGA | TACCTGTCCG | CCTTTCTCCC | TTCCGGAAGC | GTGGCGCTTT | CTCAATGCTC | 4260 |
| ACGCTGTAGG | TATCTCAGTT | CGGTGTAGGT | CGTTCGCTCC | AAGCTGGGCT | GTGTGCACGA | 4320 |
| ACCCCCCGTT | CAGCCCGACC | GCTGCGCCTT | ATCCGGTAAC | TATCGTCTTG | AGTCCAACCC | 4380 |
| GGTAAGACAC | GACTTATCGC | CACTGGCAGC | AGCCACTGGT | AACAGGATTA | GCAGAGCGAG | 4440 |
| GTATGTAGGC | GGTGCTACAG | AGTTCTTGAA | GTGGTGGCCT | AACTACGGCT | ACACTAGAAG | 4500 |
| GACAGTATTT | GGTATCTGCG | CTCTGCTGAA | GCCAGTTACC | TTCCGAAAAA | GAGTTGGTAG | 4560 |
| CTCTTGATCC | GGCAAAACAA | CCACCGCTGG | TAGCGGTGGT | TTTTTTGTTC | GCAAGCAGCA | 4620 |
| GATTACGCGC | AGAAAAAAG | GATCTCAAGA | AGATCCTTTG | ATCCTTTCTA | CGGGGTCTGA | 4680 |
| CGCTCAGTGG | AACGAAAACT | CACGTTAAGG | GATTTTGGTC | ATGAGATTAT | CAAAAAGGAT | 4740 |
| CTTCACCTAG | ATCCTTTTAA | ATTAAAAATG | AAGTTTTTAA | TCAATCTAAA | GTATATATGA | 4800 |
| GTAAACTTGG | TCTGACAGTT | ACCAATGCTT | AATCAGTGAG | GCACCTATCT | CAGCGATCTG | 4860 |
| TCTATTTTCGT | TCATCCATAG | TTGCCTGACT | CCCCGTCGTG | TAGATAACTA | CGATACGGGA | 4920 |
| GGGCTTACCA | TCTGGCCCCA | GTGCTGCAAT | GATACCGCGA | GACCCACGCT | CACCGGCTCC | 4980 |
| AGATTTTATCA | GCAATAAACC | AGCCAGCCGG | AAGGGCCGAG | CGCAGAAAGT | GTCTTGCAAC | 5040 |
| TTTATCCGCC | TCCATCCAGT | CTATTAATTG | TTGCCGGGAA | GCTAGAGTAA | GTAGTTCGCC | 5100 |
| AGTTAATAGT | TTGCGCAACG | TTGTTGCCAT | TGCTACAGGC | ATCGTGGTGT | CACGCTCGTC | 5160 |
| GTTTGGTATG | GCTTCATTCA | GCTCCGGTTC | CCAACGATCA | AGGCGAGTTA | CATGATCCCC | 5220 |
| CATGTTGTGC | AAAAAAGCGG | TTAGCTCCTT | CGGTCCTCCG | ATCGTTGTCA | GAAGTAAGTT | 5280 |
| GGCCGCAGTG | TTATCACTCA | TGGTTATGGC | AGCACTGCAT | AATTCTCTTA | CTGTCATGCC | 5340 |
| ATCCGTAAGA | TGCTTTTCTG | TGACTGGTGA | GTACTCAACC | AAGTCATTCT | GAGAATAGTG | 5400 |
| TATGCGGCGA | CCGAGTTGCT | CTTGCCCCGG | GTCAATACGG | GATAATACCG | CGCCACATAG | 5460 |
| CAGAACTTTA | AAAGTGCTCA | TCATTGGAAG | ACGTTCTTCG | GGGCGAAAAA | TCTCAAGGAT | 5520 |
| CTTACCGCTG | TTGAGATCCA | GTTTCGATGTA | ACCCACTCGT | GCACCCAAC | GATCTTCAGC | 5580 |
| ATCTTTTACT | TTCACCAGCG | TTTCTGGGTG | AGCAAAAACA | GGAAGGCAAA | ATGCCGCAAA | 5640 |
| AAAGGGAATA | AGGGCGACAC | GGAAATGTTG | AATACTCATA | CTCTTCCTTT | TTCAATATTA | 5700 |
| TTGAAGCATT | TATCAGGGTT | ATTGTCTCAT | GAGCGGATAC | ATATTTGAAT | GTATTTAGAA | 5760 |
| AAATAAACAA | ATAGGGGTTT | CGCGCACATT | TCCCCGAAAA | GTGCCACCTG | ACGTCTAAGA | 5820 |
| AACCATTATT | ATCATGACAT | TAACCTATAA | AAATAGGCGT | ATCACGAGGC | CCTTTCTGCT | 5880 |
| CGCGCGTTTC | GGTGATGACG | GTGAAAACCT | CTGACACATG | CAGCTCCCGG | AGACGGTCAC | 5940 |
| AGCTTGCTCTG | TAAGCGGATG | CCGGGAGCAG | ACAAGCCCGT | CAGGGCGCGT | CAGCGGGTGT | 6000 |
| TGGCGGGTGT | CGGGGCTGGC | TTAACTATGC | GGCATCAGAG | CAGATTGTAC | TGAGAGTGCA | 6060 |
| C | | | | | | 6061 |

Figure 11. FBdelPGASAF Sequence

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| | | | | | | |
|-------------|-------------|------------|-------------|-------------|------------|------|
| CATATGCGGT | GTGAAATACC | GCACAGATGC | GTAAGGAGAA | AATACCGCAT | CAGGCGCCAT | 60 |
| TCGCCATTCA | GGCTGCGCAA | CTGTTGGGAA | GGGCGATCGG | TGCGGGCCCTC | TTCGCTATTA | 120 |
| CGCCAGCTGG | CGAAAGGGGG | ATGTGCTGCA | AGGCGATTAA | GTTGGGTAAC | GCCAGGGTTT | 180 |
| TCCCAGTCAC | GACGTTGTAA | AACGACGGCC | AGTGAATTCC | GATTAGTTCA | ATTTGTTAAA | 240 |
| GACAGGATCT | CAGTAGTCCA | GGCTTTAGTC | CTGACTCAAC | AATACCACCA | GCTAAAACCA | 300 |
| CTAGAATACG | AGCCACAATA | AATAAAAGAT | TTTATTTAGT | TTCCAGAAAA | AGGGGGGAAT | 360 |
| GAAAGACCCC | ACCAAATTGC | TTAGCCTGAT | AGCCGCAGTA | ACGCCATTTT | GCAAGGCATG | 420 |
| GAAAAATACC | AAACCAAGAA | TAGAGAAAGT | CAGATCAAGG | GCGGGTACAC | GAAAAAGCT | 480 |
| AACGTTGGGC | CAAACAGGAT | ATCTGCGGTG | AGCAGTTTCG | GCCCCGGCCC | GGGGCCAAGA | 540 |
| ACAGATGGTC | ACCGCGGTTT | GGCCCCGGCC | CGGGGCCAAG | AACAGATGGT | CCCCAGATAT | 600 |
| GGCCCAACCC | TCAGCAGTTT | CTTAAGACCC | ATCAGATGTT | TCCAGGCTCC | CCCAAGGACC | 660 |
| TGAAATGACC | CTGTGCCTTA | TTTGAATTAA | CCAATCAGCC | TGCTTCTCGC | TTCTGTTFCG | 720 |
| GCGCTTCTGC | TTCCCGAGCT | CTATAAAAGA | GCTCAACAAC | CCTCACTCGG | CGCGCCAGTC | 780 |
| CTCCGATAGA | CTGAGTCGCC | CGGGTACCCG | TGTATCCAAT | AAATCCTCTT | GCTGTTGCAT | 840 |
| CCGACTCGTG | GTCTCGCTGT | TCCTTGGGAG | GGTCTCCTCA | GAGTGATTGA | CTACCCGTCT | 900 |
| CGGGGGTCTT | TCATTGGGGG | GCTCGTCCGG | GATCTGGAGA | CCCCTGCCCA | GGGACCACCG | 960 |
| ACCCACCACC | GGGAGGTAAG | CTGGCCAAGA | TCCCTAAGGT | ACTCGGGTCA | GACAATGGCC | 1020 |
| CGGCCTTTGT | TGCTCAGGTA | AGTCAGGGAC | TGGCCACTCA | ACTGGGGATA | AATTGGAAGT | 1080 |
| TACATTGTGC | GTATAGACCC | CAGAGCTCAG | GTCAGGTAGA | AAGAATGAAC | AGAACAATTA | 1140 |
| AAGAGACCTT | GACCAAATTA | GCCTTAGAGA | CCGGTGGAAA | AGACTGGGTG | ACCCTCCTTC | 1200 |
| CCTTAGCGCT | GCTTAGGGCC | AGGAATACCC | CTGGCCGGTT | TGGTTTAACT | CCTTATGAAA | 1260 |
| TTCTCTATGG | CCGATACCC | CCCATTCTG | AGTCTGGAGA | AACCTTGGGT | CCCGATGATA | 1320 |
| GATTTCTCCC | TGTCTTATTT | ACTCACTTAA | AGGCTTTAGA | AATTGTAAGG | ACCCAAATCT | 1380 |
| GGGACCAGAT | CAAAGAGGTG | TATAAGCCTG | GTACCGTAAC | AATCCCTCAC | CCGTTCCAGG | 1440 |
| TCGGGGATCA | AGTGCTTGTC | AGACGCCATC | GACCCAGCAG | CCTTGAGCCT | CGGTGGAAAG | 1500 |
| GCCCATACCT | GGTGTGCTG | ACTACCCCGA | CCGCGGTAAA | AGTCGATGGT | ATTGCTGCCT | 1560 |
| GGGTCCATGC | TTCTCACCTC | AAACCTGCAC | CACCTTCGGC | ACCAGATGAG | TCCTGGGAGT | 1620 |
| TGGAAAAGAC | TGATCATCCT | CTTAAGCTGC | GTATTTCGGC | GCGGCGGGAC | GAGTCTGCAA | 1680 |
| AATAAGAACC | CCCACCAGCC | CATGACCCTC | ACTTGGCAGG | TACTGTCCCA | AACTGGAGAC | 1740 |
| GTTGTCTGGG | ATACAAAGGC | AGTCCAGCCC | CCTTGGACTT | GGTGGCCAC | ACTTAAACCT | 1800 |
| GATGTATGTG | CCTTGCGCGG | TAGTCTTGAG | TCCTGGGATA | TCCCGGGAAC | CGATGTCTCG | 1860 |
| TCCTCTAAAC | GAGTCAGACC | TCCGGACTCA | GACTATACTG | CCGCTTATAA | GCAAATCACC | 1920 |
| TGGGGAGCCA | TAGGGTGCAG | CTACCCTCGG | GCTAGGACTA | GAATGGCAAG | CTCTACCTTC | 1980 |
| TACGTATGTC | CCCGGGATGG | CCGGACCCTT | TCAGAAGCTA | GAAGGTGCGG | GGGGCTAGAA | 2040 |
| TCCCTATACT | GTAAAGAATG | GGATTGTGAG | ACCACGGGGA | CCGGTTATTG | GCTATCTAAA | 2100 |
| TCCTCAAAAG | ACCTCATAAC | TGTAATAATG | GACCAAAAAT | GCGAATGGAC | TCAAAAATTT | 2160 |
| CAACAGTGTC | ACCAGACCGG | CTGGTGTAAC | CCCCCTAAAA | TAGATTTTAC | AGACAAAGGA | 2220 |
| AAATTATCCA | AGGACTGGAT | AACGGGAAAA | ACCTGGGGAT | TAAGATTCTA | TGTGTCTGGA | 2280 |
| CATCCAGGCG | TACAGTTCAC | CATTTCGCTT | AAAATCACCA | ACATGCCAGC | TGTGGCAGTA | 2340 |
| GGTCTTGACC | TCGTCTTGT | GGAACAAGGA | CCTCCTAGAA | CGTCCCTCGC | TCTCCACCT | 2400 |
| CCTCTTCCCC | CAAGGAAGC | GCCACCGCCA | TCTCTCCCCC | ACTCTAACTC | CACAGCCCTG | 2460 |
| GCGACTAGTG | CACAAACTCC | CACGGTGAGA | AAAACAATTG | TTACCCTAAA | CACCTCCGCT | 2520 |
| CCCACCACAG | GCGACAGACT | TTTTGATCTT | GTGCAGGGGG | CCTTCCTAAC | CTTAAATGCT | 2580 |
| ACCAACCCAG | GGGCCACTGA | GTCTTGCTGG | CTTTGTTTGG | CCATGGGCCC | CCCTTATTAT | 2640 |
| GAAGCAATAG | CCTCATCAGG | AGAGGTCGCG | TACTCCACCG | ACCTTGACCG | GTGCCGCTGG | 2700 |
| GGGACCCAAAG | GAAAGCTCAC | CCTCACTGAG | GTCTCAGGAC | ACGGGTGTG | CATAGGAAAG | 2760 |
| GTGCCCTTTA | CCCATCAGCA | TCTCTGCAAT | CAGACCCCTAT | CCATCAATTC | CTCCGGAGAC | 2820 |
| CATCAGTATC | TGCTCCCCCTC | CAACCATAGC | TGGTGGGCTT | GCAGCACTGG | CCTCACCCCT | 2880 |
| TGCCTCTCCA | CCTCAGTTTTT | TAATCAGACT | AGAGATTTCT | GTATCCAGGT | CCAGCTGATT | 2940 |
| CCTCGCATCT | ATTACTATCC | TGAAGAAGTT | TTGTTACAGG | CCTATGACAA | TTCTCACCCC | 3000 |
| AGGACTAAAA | GAGAGGCTGT | CTCACTTACC | CTAGCTGTTT | TACTGGGGTT | GGGAATCACG | 3060 |
| GCGGGAATAG | GTACTGGTTC | AACTGCCTTA | ATTAAAGGAT | CTATAGACCT | CCAGCAAGGC | 3120 |
| CTGACAAGCC | TCCAGATCGC | CATAGATGCT | GACCTCCGGG | CCCTCCAAGA | CTCAGTCAGC | 3180 |
| AAGTTAGAGG | ACTCACTGAC | TTCCCTGTCC | GAGGTAGTGC | TCCAAAATAG | GAGAGGCCTT | 3240 |
| GACTTGCTGT | TTCTAAAAGA | AGGTGGCCTC | TGTGCGGGCC | TAAAGGAAGA | GTGCTGTTTT | 3300 |
| TACATAGACC | ACTACGGTGC | AGTACGGGAC | TCCATGAAAA | AACTCAAAGA | AAACTGGAT | 3360 |
| AAAAGACAGT | TAGAGCGCCA | GAAAAGCCAA | AACTGGTATG | AAGGATGGTT | CAATAACTCC | 3420 |
| CCTTGGTTCA | CTACCCTGCT | ATCAACCATC | GCTGGGCCCC | TATTACTCCT | CCTTCTGTTG | 3480 |
| CTCATCCTCG | GGCCATGCAT | CATCAATCGA | TTAGTTCAAT | TTGTTAAAGA | CAGGATCTCA | 3540 |
| GTAGTCCAGG | CTTTAGTCTT | GACTCAACAA | TACCACCAGC | TAAAGCCTAT | AGAGTACGAG | 3600 |
| CCATAGGGCG | CCTTAGTGTG | ACAATTAATC | ATCGGCATAG | TATACGGCAT | AGTATAATAC | 3660 |
| GACTCACTAT | AGGAGGGCCA | CCATGGCCAA | GTTGACCAGT | GCCGTTCGGG | TGCTCACCCG | 3720 |
| GCGCGACGTC | GCCGGAGCGG | TCGAGTTCGT | GACCGACCGG | CTCGGGTTCT | CCCGGGACTT | 3780 |
| CGTGGAGGAC | GACTTCGCGG | GTGTGGTCCG | GGACGACGTG | ACCCTGTTCA | TCAGCGCGGT | 3840 |
| CCAGGACCCAG | GCTGTGCGCG | ACAACACCCT | GGCCTGGGTG | TGGGTGCGCG | GCCTGGACGA | 3900 |
| GCTGTACGCC | GAGTGGTCCG | AGGTCGTGTC | CACGAACCTC | CGGGACCGCT | CCGGGCCCGG | 3960 |
| CATGACCGAG | ATCGGCGAGC | AGCCGTGGGG | GCGGGAGTTC | GCCCTGCGCG | ACCCGGCCCG | 4020 |
| CAACTGCGTG | CACTTCGTGG | CCGAGGAGCA | GGACTGANNN | NCGGACCGGT | CGACTTGTTA | 4080 |

Figure 11. FBdelPGASAF Sequence

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| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| ACTTGTTTAT | TGCAGCTTAT | AATGGTTACA | AATAAAGCAA | TAGCATCACA | AATTTACACAA | 4140 |
| ATAAAGCATT | TTTTTCACTG | CATTCTAGTT | GTGGTTTGTC | CAAACTCATC | AATGTATCTT | 4200 |
| ATCATGTCTG | GATCCAGATC | TGGGCCCATG | CGGCCGCGGA | TCGATNNNNA | CATGTGAGCA | 4260 |
| AAAGGCCAGC | AAAAGGCCAG | GAACCGTAAA | AAGGCCGCGT | TGCTGGCGTT | TTTCCATAGG | 4320 |
| CTCCGCCCCC | CTGACGAGCA | TCACAAAAAT | CGACGCTCAA | GTCAGAGGTG | GCGAAACCCG | 4380 |
| ACAGGACTAT | AAAGATACCA | GGCGTTTCCC | CCTGGAAGCT | CCCTCGTGCG | CTCTCCTGTT | 4440 |
| CCGACCCTGC | CGCTTACCGG | ATACCTGTCC | GCCTTTCTCC | CTTCGGGAAG | CGTGGCGCTT | 4500 |
| TCTCAATGCT | CACGCTGTAG | GTATCTCAGT | TCGGTGTAGG | TCGTTTCGCTC | CAAGCTGGGC | 4560 |
| TGTGTGCACG | AACCCCCCGT | TCAGCCCCGAC | CGCTGCGCCT | TATCCGGTAA | CTATCGTCTT | 4620 |
| GAGTCCAACC | CGGTAAGACA | CGACTTATCG | CCACTGGCAG | CAGCCACTGG | TAACAGGATT | 4680 |
| AGCAGAGCGA | GGTATGTAGG | CGGTGCTACA | GAGTTCTTGA | AGTGGTGGCC | TAACACGGC | 4740 |
| TACACTAGAA | GGACAGTATT | TGGTATCTGC | GCTCTGCTGA | AGCCAGTTAC | CTTCGGAATA | 4800 |
| AGATTGGTA | GCTCTTGATC | CGGCAAAACAA | ACCACCGCTG | GTAGCGGTGG | TTTTTTTGT | 4860 |
| TGCAAGCAGC | AGATTACGCG | CAGAAAAAAA | GGATCTCAAG | AAGATCCTTT | GATCTTTTCT | 4920 |
| ACGGGGTCTG | ACGCTCAGTG | GAACGAAAAC | TCACGTAAAG | GGATTTTGGT | CATGAGATTA | 4980 |
| TCAAAAAGGA | TCTTCACCTA | GATCCTTTTA | AATTAAAAAT | GAAGTTTAA | ATCAATCTAA | 5040 |
| AGTATATATG | AGTAAACTTG | GTCTGACAGT | TACCAATGCT | TAATCAGTGA | GGCACCTATC | 5100 |
| TCACGGATCT | GCTTATTTTCG | TTCATCCATA | GTTCGCTGAC | TCCCCGTCGT | GATAGATACT | 5160 |
| ACGATACGGG | AGGGCTTACC | ATCTGGCCCC | AGTGCTGCAA | TGATACCGCG | AGACCCACGC | 5220 |
| TCACCGGCTC | CAGATTTATC | AGCAATAAAC | CAGCCAGCCG | GAAGGGCCGA | GCGCAGAAGT | 5280 |
| GGTCCTGCAA | CTTTATCCGC | CTCCATCCAG | TCTATTAATT | GTTGCCGGGA | AGCTAGAGTA | 5340 |
| AGTAGTTTCG | CAGTTAATAG | TTTGCGCAAC | GTTGTTGCCA | TTGCTACAGG | CATCGTGGTG | 5400 |
| TCACGCTCGT | CGTTTGATAT | GGCTTCATTC | AGCTCCGGTT | CCCAACGATC | AAGGCGAGTT | 5460 |
| ACATGATCCC | CCATGTTGTG | CAAAAAAGCG | GTTAGCTCCT | TCGGTCCTCC | GATCGTTGTC | 5520 |
| AGAAGTAAGT | TGGCCGCGAGT | GTTATCACTC | ATGGTTATGG | CAGCACTGCA | TAATTCTCTT | 5580 |
| ACTGTCATGC | CATCCGTAAG | ATGCTTTTCT | GTGACTGGTG | AGTACTCAAC | CAAGTCATTC | 5640 |
| TGAGAATAGT | GTATGCGGCG | ACCGAGTTGC | TCTTGCCCGG | CGTCAATACG | GGATAATACC | 5700 |
| GCGCCACATA | GCAGAACTTT | AAAAGTGCTC | ATCATTGGAA | AACGTTCTTC | GGGGCGAAAA | 5760 |
| CTCTCAAGGA | TCTTACCGCT | GTTGAGATCC | AGTTCGATGT | AACCCACTCG | TGCACCCAAC | 5820 |
| TGATCTTCAG | CATCTTTTAC | TTTCACCAGC | GTTTCTGGGT | GAGCAAAAAC | AGGAAGGCAA | 5880 |
| AATGCCGCAA | AAAAGGGAAT | AAGGGCGACA | CGGAAATGTT | GAATACTCAT | ACTCTTCCTT | 5940 |
| TTTCAATATT | ATTGAAGCAT | TTATCAGGGT | TATTGTCTCA | TGAGCGGATA | CATATTTGAA | 6000 |
| TGTATTTAGA | AAAATAAACA | AATAGGGGTT | CCGCGCACAT | TTCCCCGAAA | AGTGCCACCT | 6060 |
| GACGTCTAAG | AAACCATTAT | TATCATGACA | TTAACCTATA | AAAATAGGCG | TATCACGAGG | 6120 |
| CCCTTTTCGTC | TCGCGCGTTT | CGGTGATGAC | GGTGAAAACC | TCTGACACAT | GCAGCTCCCCG | 6180 |
| GAGACGGTCA | CAGCTTGCTT | GTAAGCGGAT | GCCGGGAGCA | GACAAGCCCG | TCAGGGCGCG | 6240 |
| TCAGCGGGTG | TTGGCGGGTG | TCGGGGCTGG | CTTAACATATG | CGGCATCAGA | GCAGATTGTA | 6300 |
| CTGAGAGTGC | AC | | | | | 6312 |

Figure 12. FBdelPRDSAF Sequence

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| | | | | | | |
|-------------|-------------|-------------|------------|-------------|-------------|------|
| CATATGCGGT | GTGAAATACC | GCACAGATGC | GTAAGGAGAA | AATACCGCAT | CAGGCGCCAT | 60 |
| TCGCCATTCA | GGCTGCGCAA | CTGTTGGGAA | GGGCGATCGG | TGCGGGCCCTC | TTCGCTATTA | 120 |
| CGCCAGCTGG | CGAAAGGGGG | ATGTGCTGCA | AGGCGATTAA | GTTGGGTAAC | GCCAGGGTTT | 180 |
| TCCCAGTCAC | GACGTTGTAA | AACGACGGCC | AGTGAATTCC | GATTAGTTCA | ATTTGTATAA | 240 |
| GACAGGATCT | CAGTAGTCCA | GGCTTTAGTC | CTGACTCAAC | AATACCACCA | GCTAAAACCA | 300 |
| CTAGAATACG | AGCCACAATA | AATAAAAGAT | TTTATTTAGT | TTCCAGAAAA | AGGGGGGAAT | 360 |
| GAAAGACCCC | ACCAAATTGC | TTAGCCTGAT | AGCCGCAGTA | ACGCCATTTT | GCAAGGCATG | 420 |
| GAAAAATACC | AAACCAAGAA | TAGAGAAGTT | CAGATCAAGG | GCGGGTACAC | GAAAAACAGCT | 480 |
| AACGTTGGGC | CAAACAGGAT | ATCTGCGGTG | AGCAGTTTCG | GCCCCGGCCC | GGGGCCAAGA | 540 |
| ACAGATGGTC | ACCGCGGTTT | GGCCCCGGCC | CGGGGCCAAG | AACAGATGGT | CCCCAGATAT | 600 |
| GGCCCAACCC | TCAGCAGTTT | CTTAAGACCC | ATCAGATGTT | TCCAGGCTCC | CCCAAGGACC | 660 |
| TGAAATGACC | CTGTGCCTTA | TTTGAATTAA | CCAATCAGCC | TGCTTCTCGC | TTCTGTTTCG | 720 |
| GCGCTTCTGC | TTCCCGAGCT | CTATAAAAGA | GCTCACAACC | CCTCACTCGG | CGCGCCAGTC | 780 |
| CTCCGATAGA | CTGAGTCGCC | CGGGTACCCG | TGTATCCAAT | AAATCCTCTT | GCTGTTGCAT | 840 |
| CCGACTCGTG | GTCTCGCTGT | TCCTTGGGAG | GGTCTCCTCA | GAGTGATTGA | CTACCCGTCT | 900 |
| CGGGGGTCTT | TCATTTGGGG | GCTCGTCCGG | GATCTGGAGA | CCCCTGCCCA | GGGACCACCG | 960 |
| ACCCATTACC | GGGAGGTAAG | CTGGCCAAGA | TCCCCGGGC | TGCAGGAATT | TATGAAATCC | 1020 |
| TTTATGGGGG | ACCCCCCCTT | TTGTCAACCT | TGCTCAATTC | CTTCTCCCCC | TCCGATCCCTA | 1080 |
| AGACTGATTT | ACAAGCCCGA | CTAAAAGGGC | TGCAAGGCGT | GCAGGCCCAA | ATCTGGACAC | 1140 |
| CCCTGGCCGA | ATTGTACCGG | CCAGGACATC | CACAAACTAG | CCACCCATTT | CAGGTGGGAG | 1200 |
| ACTCCGTGTA | CGTCCGGCGG | CACCGCTCTC | AAGGATTGGA | GCCTCGTTGG | AAGGGACCTT | 1260 |
| ACATCGTCCCT | GCTGACACAG | CCCACGCCCA | TAAAGGTTGA | CGGGATCGCC | GCCTGGATTC | 1320 |
| ACGCATCGCA | CGCCAAGGCA | GCCCCAAAAA | CCCCTGGACC | AGAAACTCCC | AAAACCTGGA | 1380 |
| AGTCCGCCCG | TTCGGAGAAC | CCTCTTAAGA | TAAGACTCTC | CCGTGTCTGA | CTGCTAATCC | 1440 |
| ACCTTGTCCT | TGTACTAACC | CAAAATGAAA | CTCCCAACAG | GAATGGTCAT | TTTATGTAGC | 1500 |
| CTAATAATAG | TTCCGGGCAGG | GTTTGACGAC | CCCCGCAAGG | CTATCGCATT | AGTACAAAAA | 1560 |
| CAACATGGTA | AACCATGCGA | ATGCAGCGGA | GGCGAGGTAT | CCGAGGCCCC | ACCGAATCC | 1620 |
| ATCCAACAGG | TAACCTTGCCC | AGGCAAGACG | GGCTACTTAA | TGACCAACCA | AAAATGGAAA | 1680 |
| TGCAGAGTCA | CTCCAAAAAT | CTCACCTAGC | GGGGGAGAAC | TCCAGAACTG | CCCCTGTAAC | 1740 |
| ACTTTCCAGG | ACTCGATGCA | CAGTTCTTGT | TATACTGAAT | ACCGGCAATG | CAGGCGAATT | 1800 |
| AATAAGACAT | ACTACACGCC | CACCTTGCTT | AAAATACGGT | CTGGGAGCCT | CAACGAGGTA | 1860 |
| CAGATATTAC | AAAACCCCCA | TCAGCTCCTA | CAGTCCCCTT | GTAGGGGCTC | TATAAATCAG | 1920 |
| CCCGTTTGCT | GGAGTGCCAC | AGCCCCCATC | CATATCTCCG | ATGGTGAGAG | ACCCCTCGAT | 1980 |
| ACTAAGAGAG | TGTGGACAGT | CCAAAAAAGG | CTAGAACAAA | TTCATAAGGC | TATGACTCCT | 2040 |
| GAACTTCAAT | ACCACCCCTT | AGCCCTGCCC | AAAGTCAGAG | ATGACCTTAG | CCTTGATGCA | 2100 |
| CGGACTTTTG | ATATCTGAA | TACCACTTTT | AGGTACTCC | AGATGTCCAA | TTTTAGCCTT | 2160 |
| GCCCAAGATT | GTTGGCTCTG | TTTAAAACTA | GGTACCCCTA | CCCCTCTTGC | GATACCCACT | 2220 |
| CCCTCTTTAA | CCTACTCCCT | AGCAGACTCC | CTAGCGAATG | CCTCCTGTCA | GATTATACCT | 2280 |
| CCCCTCTTGG | TTCAACCGAT | GCAGTTCTCC | AACCTCGTCT | GTTTATCTTC | CCCTTTCATT | 2340 |
| AACGATACGG | AACAAATAGA | CTTAGGTGCA | GTCACCTTTA | CTAAGTGCAC | CTCTGTAGCC | 2400 |
| AATGTCAGTA | TGCCCTTATG | TGCCCTAAAC | GGGTCAGTCT | TCCTCTGTGG | AAATAACATG | 2460 |
| GCATACACCT | ATTTACCCCA | AAACTGGACC | AGACTTTGCG | TCCAAGCCTC | CCTCTCCCC | 2520 |
| GACATTGACA | TCAACCCGGG | GGATGAGCCA | GTCCCCATTC | CTGCCATTGA | TCATTATATA | 2580 |
| CATAGACCTA | AACGAGCTGT | ACAGTTTCATC | CCTTTACTAG | CTGGACTGGG | AATCACCGCA | 2640 |
| GCATTACCA | CCGGAGCTAC | AGGCCTAGGT | GTCTCCGTCA | CCCAGTATAC | AAAATTATCC | 2700 |
| CATCAGTTAA | CTAGTGAAGT | CCAAGTCTTA | TCCGGTACCA | TACAAGATTT | ACAAGACCAG | 2760 |
| GTAGACTCGT | TAGCTGAAGT | AGTTCTCCAA | AATAGGAGGG | GACTGGACCT | ACTAACGCCA | 2820 |
| GAACAAGGAG | GAATTTGTTT | AGCCTTACAA | GAAAAATGCT | GTTTTTTATG | TAACAAGTCA | 2880 |
| GGAATTGTGA | GAAACAAAAT | AAGAACCCTA | CAAGAAGAAT | TACAAAAACG | CAGGGAAAGC | 2940 |
| CTGGCAACCA | ACCCTCTCTG | GACCGGGCTG | CAGGGCTTTC | TTCCGTACCT | CCTACCTCTC | 3000 |
| CTGGGACCCC | TACTCACCTT | CCTACTCATA | CTAACCATTG | GGCCATGCGT | TTTCAGTCGC | 3060 |
| CTCATGGCCT | TCATTAATGA | TAGACTTAAT | GTTGTACATG | CCATGGTGCT | GGCCCCAGCA | 3120 |
| TACCAAGCAC | TCAAAGCTGA | GGAAGAAGCT | CAGGATTGAG | GCGCCTAGTG | TTGACAATTA | 3180 |
| ATCATCGGCA | TAGTATACGG | CATAGTATAA | TACGACTCAC | TATAGGAGGG | CCACCATGGC | 3240 |
| CAAGTTGACC | AGTGCCGTTT | CGGTGCTCAC | CGCGCGCGAC | GTCGCCGGAG | CGGTGCGATT | 3300 |
| CTGGACCGAC | CGGCTCGGGT | TCTCCCGGGA | CTTCGTGGAG | GACGACTTCG | CCGGTGTGGT | 3360 |
| CCGGGACGAC | GTGACCCCTG | TCATCAGCGC | GGTCCAGGAC | CAGGTGGTGC | CGGACAACAC | 3420 |
| CCTGGCCTGG | GTGTGGGTGC | GCGGCCTGGA | CGAGCTGTAC | GCCGAGTGGT | CGGAGGTCGT | 3480 |
| GTCCACGAAC | TTCCGGGACG | CCTCCGGGCC | GGCCATGACC | GAGATCGGCG | AGCAGCCGTG | 3540 |
| GGGGCGGGAG | TTCCGCCCTG | GCGACCCGGC | CGGCAACTGC | GTGCACTTCG | TGGCCGAGGA | 3600 |
| GCAGGACTGA | NNNNCGGACC | GGTCGACTTG | TTAACTTGTT | TATTGCGAGT | TATAATGGTT | 3660 |
| ACAAATAAAG | CAATAGCATC | ACAAATTTCA | CAAATAAAGC | ATTTTTTTTCA | CTGCATTCTA | 3720 |
| GTTGTGGTTT | GTCCAAACTC | ATCAATGTAT | CTTATCATGT | CTGGATCCAG | ATCTGGGCCC | 3780 |
| ATGCGGCGCG | GGATCGATNN | NNACATGTGA | GCAAAAGGCC | AGCAAAAGGC | CAGGAACCGT | 3840 |
| AAAAAGGCCG | CGTTGCTGGC | GTTTTTCCAT | AGGCTCCGCC | CCCCTGACGA | GCATCACAAA | 3900 |
| AATCGACGCT | CAAGTACAG | GTGGCGAAAC | CCGACAGGAC | TATAAAGATA | CCAGGCGTTT | 3960 |
| CCCCCTGGAA | GCTCCCTCGT | GCGCTCTCCT | GTTCCGACCC | TGCCGCTTAC | CGGATACCTG | 4020 |
| TCCGCCTTTC | TCCCTTCGGG | AAGCGTGGCG | CTTTCTCAAT | GCTCACGCTG | TAGGTATCTC | 4080 |

Figure 12. FBdelPRDSAF Sequence

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| | | | | | | |
|------------|-------------|------------|------------|------------|-------------|------|
| AGTTCGGTGT | AGGTCGTTTCG | CTCCAAGCTG | GGCTGTGTGC | ACGAACCCCC | CGTTCAGCCC | 4140 |
| GACCGCTGCG | CCTTATCCGG | TAACTATCGT | CTTGAGTCCA | ACCCGGTAAG | ACACGACTTA | 4200 |
| TCGCCACTGG | CAGCAGCCAC | TGGTAACAGG | ATTAGCAGAG | CGAGGTATGT | AGGCGGTGCT | 4260 |
| ACAGAGTTCT | TGAAGTGGTG | GCCTAACTAC | GGCTACACTA | GAAGGACAGT | ATTTGGGTATC | 4320 |
| TGCGCTCTGC | TGAAGCCAGT | TACCTTCGGA | AAAAGAGTTG | GTAGCTCTTG | ATCCGGCAAA | 4380 |
| CAAACCACCG | CTGGTAGCGG | TGGTTTTTTT | GTTTGCAAGC | AGCAGATTAC | GCGCAGAAAA | 4440 |
| AAAGGATCTC | AAGAAGATCC | TTTGATCTTT | TCTACGGGGT | CTGACGCTCA | GTGGAACGAA | 4500 |
| AACTCACGTT | AAGGGATTTT | GGTCATGAGA | TTATCAAAAA | GGATCTTCAC | CTAGATCCTT | 4560 |
| TTAAATTAAA | AATGAAGTTT | TAAATCAATC | TAAAGTATAT | ATGAGTAAAC | TTGGTCTGAC | 4620 |
| AGTTACCAAT | GCTTAATCAG | TGAGGCACCT | ATCTCAGCGA | TCTGTCTATT | TCGTTTCATCC | 4680 |
| ATAGTTGCCT | GACTCCCCGT | CGTGTAGATA | ACTACGATAC | GGGAGGGCTT | ACCATCTGGC | 4740 |
| CCCAGTGCTG | CAATGATACC | GCGAGACCCA | CGCTCACCGG | CTCCAGATTT | ATCAGCAATA | 4800 |
| AACCAGCCAG | CCGGAAGGGC | CGAGCGCAGA | AGTGGTCCTG | CAACTTTATC | CGCCTCCATC | 4860 |
| CAGTCTATTA | ATTGTTGCCG | GGAAGCTAGA | GTAAGTAGTT | CGCCAGTTAA | TAGTTTGCGC | 4920 |
| AACGTTGTTG | CCATTGCTAC | AGGCATCGTG | GTGTACGCT | CGTCGTTTGG | TATGGCTTCA | 4980 |
| TTCAGCTCCG | GTTCCCAACG | ATCAAGGCGA | GTTACATGAT | CCCCCATGTT | GTGCAAAAAA | 5040 |
| GCGGTTAGCT | CCTTCGGTCC | TCCGATCGTT | GTCAGAAGTA | AGTTGGCCGC | AGTGTTATCA | 5100 |
| CTCATGGTTA | TGGCAGCACT | GCATAATTCT | CTTACTGTCA | TGCCATCCGT | AAGATGCTTT | 5160 |
| TCTGTGACTG | GTGAGTACTC | AACCAAGTCA | TTCTGAGAAT | AGTGTATGCG | GCGACCGAGT | 5220 |
| TGCTCTTGCC | CGGCGTCAAT | ACGGGATAAT | ACCGCGCCAC | ATAGCAGAAC | TTTAAAGTG | 5280 |
| CTCATCATTG | GAAAACGTTT | TTCGGGGCGA | AAACTCTCAA | GGATCTTACC | GCTGTTGAGA | 5340 |
| TCCAGTTCGA | TGTAACCCAC | TCGTGCACCC | AACTGATCTT | CAGCATCTTT | TACTTTCACC | 5400 |
| AGCGTTTCTG | GGTGAGCAAA | AACAGGAAGG | CAAAATGCCG | CAAAAAAGGG | AATAAGGGCG | 5460 |
| ACACGGAAAT | GTTGAATACT | CATACTCTTC | CTTTTTCAAT | ATTATTGAAG | CATTTATCAG | 5520 |
| GGTTATTGTC | TCATGAGCGG | ATACATATTT | GAATGTATTT | AGAAAAATAA | ACAAATAGGG | 5580 |
| GTTCCGCGCA | CATTTCCCCG | AAAAGTGCCA | CCTGACGTCT | AAGAAACCAT | TATTATCATG | 5640 |
| ACATTAACCT | ATAAAAATAG | GCGTATCACG | AGGCCCTTTC | GTCTCGCGCG | TTTCGGTGAT | 5700 |
| GACGGTGAAA | ACCTCTGACA | CATGCAGCTC | CCGGAGACGG | TCACAGCTTG | TCTGTAAGCG | 5760 |
| GATGCCGGGA | GCAGACAAGC | CCGTCAGGGC | GCGTCAGCGG | GTGTTGGCGG | GTGTCGGGGC | 5820 |
| TGGCTTAACT | ATGCGGCATC | AGAGCAGATT | GTAAGTATAT | TGCAC | | 5865 |

Figure 13. hCMV10A1 Sequence

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| | | | | | | |
|------------|------------|------------|------------|-------------|-------------|------|
| AGATCTCCCG | ATCCCCTATG | GTCGACTCTC | AGTACAATCT | GCTCTGATGC | CGCATAGTTA | 60 |
| AGCCAGTATC | TGCTCCCTGC | TTGTGTGTTG | GAGGTCGCTG | AGTAGTGCGC | GAGCAAAATT | 120 |
| TAAGCTACAA | CAAGGCAAGG | CTTGACCGAC | AATTGCGATG | AGAATCTGCT | TAGGGTTAGG | 180 |
| CGTTTTGCGC | TGCTTCGCGA | TGTACGGGCC | AGATATACGC | GTTGACATTG | ATTATTGACT | 240 |
| AGTTATTAAT | AGTAATCAAT | TACGGGGTCA | TTAGTTCATA | GCCCATATAT | GGAGTTCCGC | 300 |
| GTTACATAAC | TTACGGTAAA | TGGCCCGCCT | GGCTGACCGC | CCAACGACCC | CCGCCCATTG | 360 |
| ACGTCAATAA | TGACGTATGT | TCCCATAGTA | ACGCCAATAG | GGACTTTCCA | TTGACGTCAA | 420 |
| TGGGTGGACT | ATTACGGTA | AACTGCCAC | TTGGCAGTAC | ATCAAGTGTA | TCATATGCCA | 480 |
| AGTACGCCCC | CTATTGACGT | CAATGACGGT | AAATGGCCCC | CCTGGCATT | TGCCCAGTAC | 540 |
| ATGACCTTAT | GGGACTTTCC | TACTTGCGAG | TACATCTACG | TATTAGTCAT | CGCTATTACC | 600 |
| ATGGTGATGC | GGTTTTGGCA | GTACATCAAT | GGGCGTGGAT | AGCGGTTTGA | CTCACGGGGA | 660 |
| TTTCCAAGTC | TCCACCCAT | TGACGTCAAT | GGGAGTTTGT | TTTGGCACCA | AAATCAACGG | 720 |
| GACTTTCCAA | AATGTCGTAA | CAACTCCGCC | CCATTGACGC | AAATGGGCGG | TAGGCGTGTA | 780 |
| CGGTGGGAGG | TCTATATAAG | CAGAGCTCTC | TGGCTAACTA | GAGAACCCAC | TGCTTAACTG | 840 |
| GCTTATCGAA | ATGTCGACTG | AGAACTTCAG | GGTGAGTTTG | GGGACCCTTG | ATTGTTCTTT | 900 |
| CTTTTTCGCT | ATTGTAAAT | TCATGTTATA | TGGAGGGGGC | AAAGTTTTCA | GGGTGTTGTT | 960 |
| TAGAAATGGA | AGATGTCCCT | TGTATCACC | TGGACCCCTA | TGATAATTTT | GTTTCTTTTCA | 1020 |
| CTTTCTACTC | TGTTGACAA | CATTGTCTCC | TCTTATTTTC | TTTTCATTTT | CTGTAACCTT | 1080 |
| TTCGTTAAAC | TTTAGCTTGC | ATTTGTAACG | AATTTTAA | TTCACTTTGT | TTTATTTGTC | 1140 |
| AGATTGTAAG | TACTTCTCT | AATCACTTTT | TTTTCAAGGC | AATCAGGGTA | TATTATATTG | 1200 |
| TACTTCAGCA | CAGTTTGTGA | GAACAATTGT | TATAATTAAA | TGATAAGGTA | GAATATTTCT | 1260 |
| GCATATAAAT | CTGTTGCTG | GTGGAAATAT | TCTTATTGGT | AGAAACAAT | ACATCCTGGT | 1320 |
| CATCATCTCG | CCTTTCTCTT | TATGGTTACA | ATGATATACA | CTGTTTGAGA | TGAGGATAAA | 1380 |
| ATACTCTGAG | TCCAAACCGG | GCCCCTCTGC | TAACCATGTT | CATGCCCTTCT | TCTTTTCTCT | 1440 |
| ACAGCTCCTG | GGCAACGTGC | TGGTTGTTGT | GCTGTCTCAT | CATTTTGGCA | AGGATCGGCC | 1500 |
| GGAACAGCAT | CAGGACCGAC | ATGGAAGGTG | CAGCGTTCTC | AAAACCCCTT | AAAGATAAGA | 1560 |
| TTAACCCGTG | GAGGTCCCTA | ATGGTCATGC | GGGTCTATTT | AAGAGTAGGG | ATGGCAGAGA | 1620 |
| GCCCCATCA | GGTCTTTAAT | GTAACCTGGA | GAGTCACCAA | CCTGATGACT | GGGCGTAGCC | 1680 |
| CCAATGCCAC | CTCCCTTTTA | GGAACGTGAC | AAGATGCCTT | CCCAAGATTA | TATTTTGATC | 1740 |
| TATGTGATCT | GGTCGGAGAA | GAGTGGGACC | CTTCAGACCA | GGAACCATAT | GTCCGGTATG | 1800 |
| GCTGCAAATA | CCCCGGAGGG | AGAAAGCGGA | CCCAGACTTT | TGACTTTTAC | GTGTGCCCTG | 1860 |
| GGCATACCGT | AAAATCGGGG | TGTGGGGGGC | CAAGAGAGGG | CTACTGTGGT | GAATGGGGTT | 1920 |
| GTGAAACCAC | CGGACAGGCT | TACTGGAAGC | CCACATCATC | ATGGGACCTA | ATCTCCCTTA | 1980 |
| AGCGCGGTAA | CACCCCTTGG | GACACGGGAT | GCTCCAAAAT | GGCTTGTGGC | CCCTGTCTACG | 2040 |
| ACCTCTCCAA | AGTATCCAAT | TCCTTCCAAG | GGGCTACTCG | AGGGGGCAGA | TGCAACCCTC | 2100 |
| TAGTCCTAGA | ATTCACTGAT | GCAGGAAAAA | AGGCTAATTG | GGACGGGCCC | AAATCGTGGG | 2160 |
| GACTGAGACT | GTAACCGACA | GGAACAGATC | TATTACCATT | GTTCTCCCTG | ACCCGCCAGG | 2220 |
| TCCTCAATAT | AGGGCCCCGC | ATCCCCATTG | GGCCTAATCC | CGTGATCACT | GGTCAACTAC | 2280 |
| CCCCCTCCCG | ACCCGTGCAG | ATCAGGCTCC | CCAGGCCTCC | TCAGCCTCCT | CCTACAGGCG | 2340 |
| CAGCCTCTAT | AGTCCCTGAG | ACTGCCCCAC | CTTCTCAACA | ACCTGGGACG | GGAGACAGGC | 2400 |
| TGCTAAACCT | GGTAGAAGGA | GCCTATCAGG | CGCTTAACCT | CACCAATCCC | GACAAGACCC | 2460 |
| AAGAAATGTT | GCTGTGCTTA | GTGTGCGGAC | TCTCTTATTA | CGAAGGAGTA | GCGGTCTGTG | 2520 |
| GCACTTATAC | CAATCATTCT | ACCGCCCCGG | CCAGCTGTAC | GGCCACTTCC | CAACATAAGC | 2580 |
| TTACCCTATC | TGAAGTGACA | GGACAGGGCC | TATGCATGGG | AGCACTACCT | AAAACCTACC | 2640 |
| AGGCCTTATG | TAACACCACC | CAAAGTGCCG | GCTCAGGATC | CTACTACCTT | GCAGCACCCG | 2700 |
| CTGGAACAAT | GTGGGCTTGT | AGCACTGGAT | TGACTCCCTG | CTTGTCCACC | ACGATGCTCA | 2760 |
| ATCTAACCAC | AGACTATTGT | GTATTAGTTG | AGCTCTGGCC | CAGAATAATT | TACCACTCCC | 2820 |
| CCGATTATAT | GTATGGTCAG | CTTGAACAGC | GTACCAATA | TAAGAGGGAG | CCAGTATCGT | 2880 |
| TGACCCTGGC | CCTTCTGCTA | GGAGGATTAA | CCATGGGAGG | GATTGCAGCT | GGAATAGGGA | 2940 |
| CGGGGACCAC | TGCCCTAATC | AAAACCCAGC | AGTTTGAGCA | GCTTCACGCC | GCTATCCAGA | 3000 |
| CAGACCTCAA | CGAAGTCGAA | AAATCAATTA | CCAACCTAGA | AAAGTCACTG | ACCTCGTTGT | 3060 |
| CTGAAGTAGT | CCTACAGAAC | CGAAGAGGCC | TAGATTTGCT | CTTCTTAAAA | GAGGGAGGTC | 3120 |
| TCTGCGCAGC | CCTAAAAGAA | GAATGTTGTT | TTTATGCAGA | CCACACGGGA | CTAGTGAGAG | 3180 |
| ACAGCATGGC | CAAACCTAAG | GAAAGGCTTA | ATCAGAGACA | AAAACCTATT | GAGTCAGGCC | 3240 |
| AAGGTTGGTT | CGAAGGGCAG | TTTAATAGAT | CCCCCTGGTT | TACCACCTTA | ATCTCCACCA | 3300 |
| TCATGGGACC | TCTAATAGTA | CTCTTACTGA | TCTTACTCTT | TGGACCCTGC | ATTCTCAATC | 3360 |
| GATTAGTTCA | ATTTGTTAAA | GACAGGATCT | GAGTAGTCCA | GGCTTTAGTC | CTGACTCAAC | 3420 |
| AATACCACCA | GCTAAAGCCT | ATAGAGTACG | AGCCATAGGG | CGCCTAGTGT | TGACAATTAA | 3480 |
| TCATCGGCAT | AGTATACGGC | ATAGTATAAT | ACGACTCACT | ATAGGAGGGC | CACCATGGCC | 3540 |
| AAGTTGACCA | GTGCCGTTCC | GGTGCTCACC | GCGCGCGACG | TCGCCGGAGC | GGTCGAGTTC | 3600 |
| TGGACCGACC | CTCCCGGGTT | CTCCCGGGAC | TTCTGTGGAG | ACGACTTCGC | CGGTGTGGTC | 3660 |
| CGGGACGACG | TGACCCTGTT | CATCAGCGCG | TCCAGGACC | AGGTGGTGCC | GGACAACACC | 3720 |
| CTGGCCTGGG | TGTGGGTGCG | CGGCCTGGAC | GAGCTGTACG | CCGAGTGGTC | GGAGGTCGTG | 3780 |
| TCCACGAACT | TCCGGGACGC | CTCCGGGGCC | GCCATGACCG | AGATCGGCGA | GCAGCCGTGG | 3840 |
| GGGCGGGAGT | TCGCCCTGCG | CGACCCGGCC | GGCAACTGCG | TGCACTTCGT | GGCCGAGGAG | 3900 |
| CAGGACTGAN | NNNCGGACCG | GTCGA | | | | 3925 |